


STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING						FORM 3 AMENDED REPORT <input type="checkbox"/>				
APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER NBU 1022-9E4CS				
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT NATURAL BUTTES				
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES				
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.						7. OPERATOR PHONE 720 929-6507				
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217						9. OPERATOR E-MAIL mike.mcconaughey@anadarko.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU 01196-B			11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>				
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
20. LOCATION OF WELL	FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN			
LOCATION AT SURFACE	2080 FSL 1378 FWL		NESW	9	10.0 S	22.0 E	S			
Top of Uppermost Producing Zone	2555 FNL 672 FWL		SWNW	9	10.0 S	22.0 E	S			
At Total Depth	2555 FNL 672 FWL		SWNW	9	10.0 S	22.0 E	S			
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 672		23. NUMBER OF ACRES IN DRILLING UNIT 320					
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 984		26. PROPOSED DEPTH MD: 10122 TVD: 10004					
27. ELEVATION - GROUND LEVEL 5152			28. BOND NUMBER WYB000291		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496					
Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	11	8.625	0 - 2360	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 10122	11.6	HCP-110 LT&C	12.5	Class G	780	3.38	12.0
							Class G	1430	1.31	14.3
ATTACHMENTS										
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES										
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Joel Malefyt			TITLE Regulatory Analyst			PHONE 720 929-6828				
SIGNATURE			DATE 12/21/2015			EMAIL joel.malefyt@anadarko.com				
API NUMBER ASSIGNED 43047555200000			APPROVAL  Permit Manager							

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 1022-9E4CS**

Surface:	2080 FSL / 1378 FWL	NESW
BHL:	2555 FNL / 672 FWL	NWSW

Section 9 T10S R22E

Unitah County, Utah
Mineral Lease: UTU-01196B

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

1. & 2.a **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,123'	
Birds Nest	1,439'	Water
Mahogany	1,914'	Water
Wasatch	4,280'	Gas
Mesaverde	6,773'	Gas
Sego	8,866'	Gas
Castlegate	8,953'	Gas
Blackhawk	9,404'	Gas
TVD =	10,004'	
TD =	10,122'	

- 2.b** Kerr McGee Oil & Gas Onshore LP (Kerr McGee) may elect to drill to (i) the Blackhawk formation (part of the Mesaverde Group), (ii) to a shallower depth within the Mesaverde Group, or (iii) to the Wasatch Formation. If Kerr McGee drills to the Blackhawk formation, please refer to Blackhawk as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr-McGee drills to a shallower depth in the Mesaverde Group or to the Wasatch Formation, please refer to the attached Wasatch/Mesaverde Drilling Program which includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the shallower formations.

3. Pressure Control Equipment

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

4. Proposed Casing & Cementing Program:

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

5. Drilling Fluids Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. Evaluation Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. Abnormal Conditions:**7.a Blackhawk (Part of Mesaverde Group)**

Maximum anticipated bottom hole pressure calculated at 10004' TVD, approximately equals
6,403 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,188 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press. (MASP) = (Pore Pressure at next csg point -
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

7.b Wasatch Formation/Mesaverde Group

Maximum anticipated bottom hole pressure calculated at 8866' TVD, approximately equals
5,408 psi (0.61 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,481 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press. (MASP) = (Pore Pressure at next csg point -
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

10. Other Information:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

**KERR-McGEE OIL & GAS ONSHORE LP****Blackhawk Drilling Program****CASING PROGRAM**

						DESIGN FACTORS			
	SIZE	INTERVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	LTC	DQX
								TENSION	
CONDUCTOR	14"	0-40'							
						3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0 to 2,360	28.00	IJ-55	LTC	2.28	1.70	6.01	N/A
PRODUCTION						10,690	8,650	279,000	
	4-1/2"	0 to 10,122'	11.60	HCP-110	LTC	1.19	1.33	2.40	

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
			+ 0.25 pps flocele					
Option 1								
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized					
Option 2								
	LEAD	1,860'	Premium cmt + 16% Gel + 10 pps gilsonite	280	35%	12.00		2.86
			+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps					
	TAIL	500'	Premium cmt + 2% CaCl	170	35%	15.80		1.15
			+ 0.25 pps flocele					
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION	LEAD	3,772'	13.5ppg yield 1.29, 65:35 Poz:G	780	35%	13.50		1.29
			+ .3% Dispersant + .1% Extender					
			+ .05% High-Temp Retarder					
	TAIL	6,350'	14.5ppg yield 1.37, 50:50 Poz:G	1,430	35%	14.50		1.37
			+ 35% BWOC Silica + .2% Extender					
			+ .3% FLAC + .3% High-Temp Retarder					

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

DRILLING ENGINEER:

Zach Haynes/Eric Giles

DATE:**DRILLING SUPERINTENDENT:**

Lovel Young

DATE:

RECEIVED: December 21, 2015



KERR-McGEE OIL & GAS ONSHORE LP

Wasatch/Mesaverde Drilling Program

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	DQX
								TENSION	
CONDUCTOR	14"	0-40'							
						3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0 to 2,360	28.00	IJ-55	LTC	2.28	1.70	6.01	N/A
PRODUCTION						7,780	6,350	223,000	
	4-1/2"	0 to 8,983'	11.60	I-80	LTC	0.86	1.15	2.20	

Surface Casing:

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe
 Fracture at surface shoe with 0.1 psi/ft gas gradient above
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.61 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized				
Option 2	LEAD	1,860'	Premium cmt + 16% Gel + 10 pps gilsonite	280	35%	12.00	2.86
			+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps				
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	3,773'	12.5ppg yield 1.45, 75:25 Poz:G	690	35%	12.50	1.45
			+ .2% Dispersant + .5% Extender				
			+ .43% Mid-Temp Retarder				
	TAIL	5,210'	14.5ppg yield 1.34, 50:50 Poz:G	1,200	35%	14.50	1.34
			+ 35% BWOC Silica + .3% FLAC				
			+ .17% Mid Temp Retarder				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

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DRILLING ENGINEER:

Zach Haynes/Eric Giles

DATE:**DRILLING SUPERINTENDENT:**

Lovel Young

DATE:

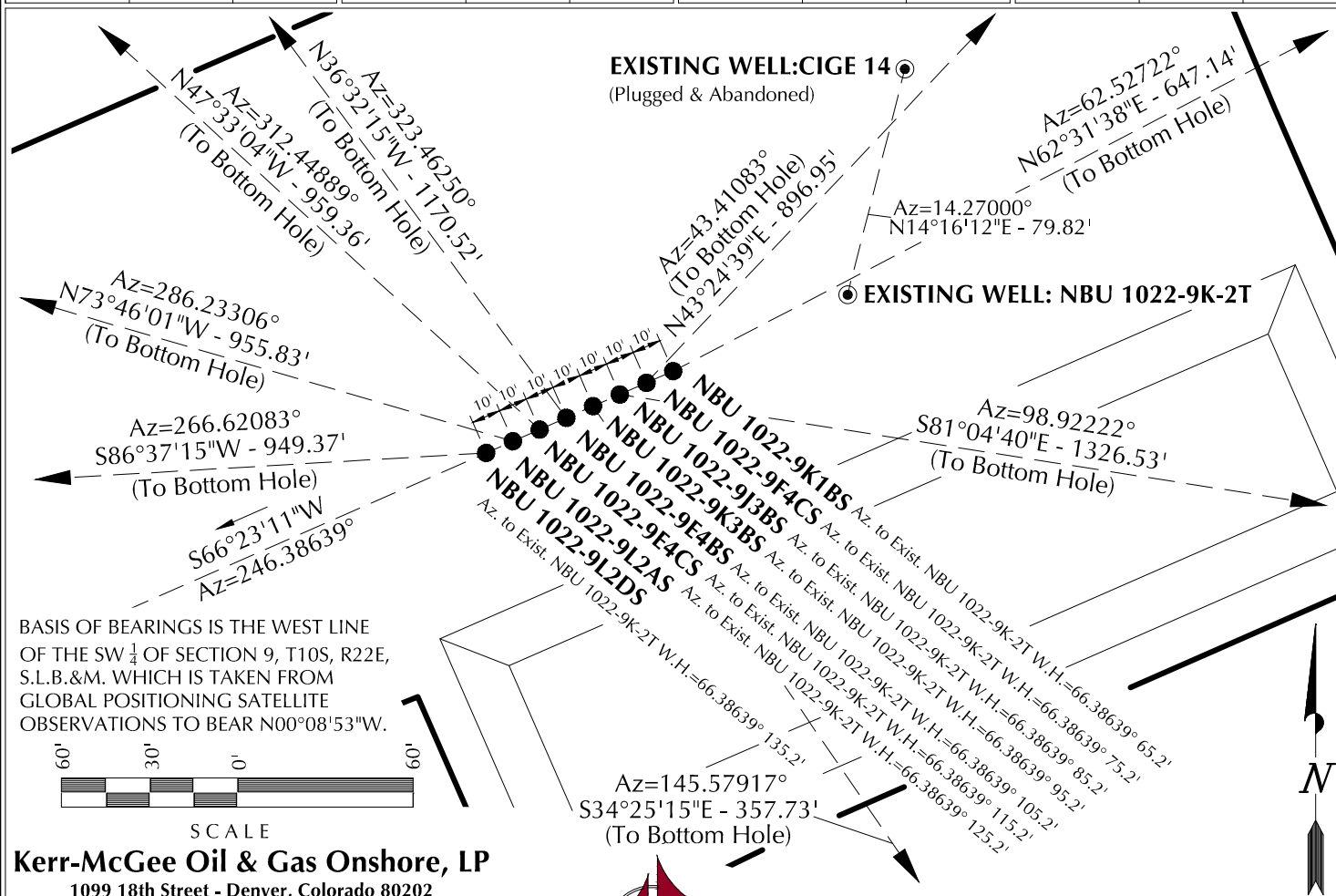
RECEIVED: December 21, 2015

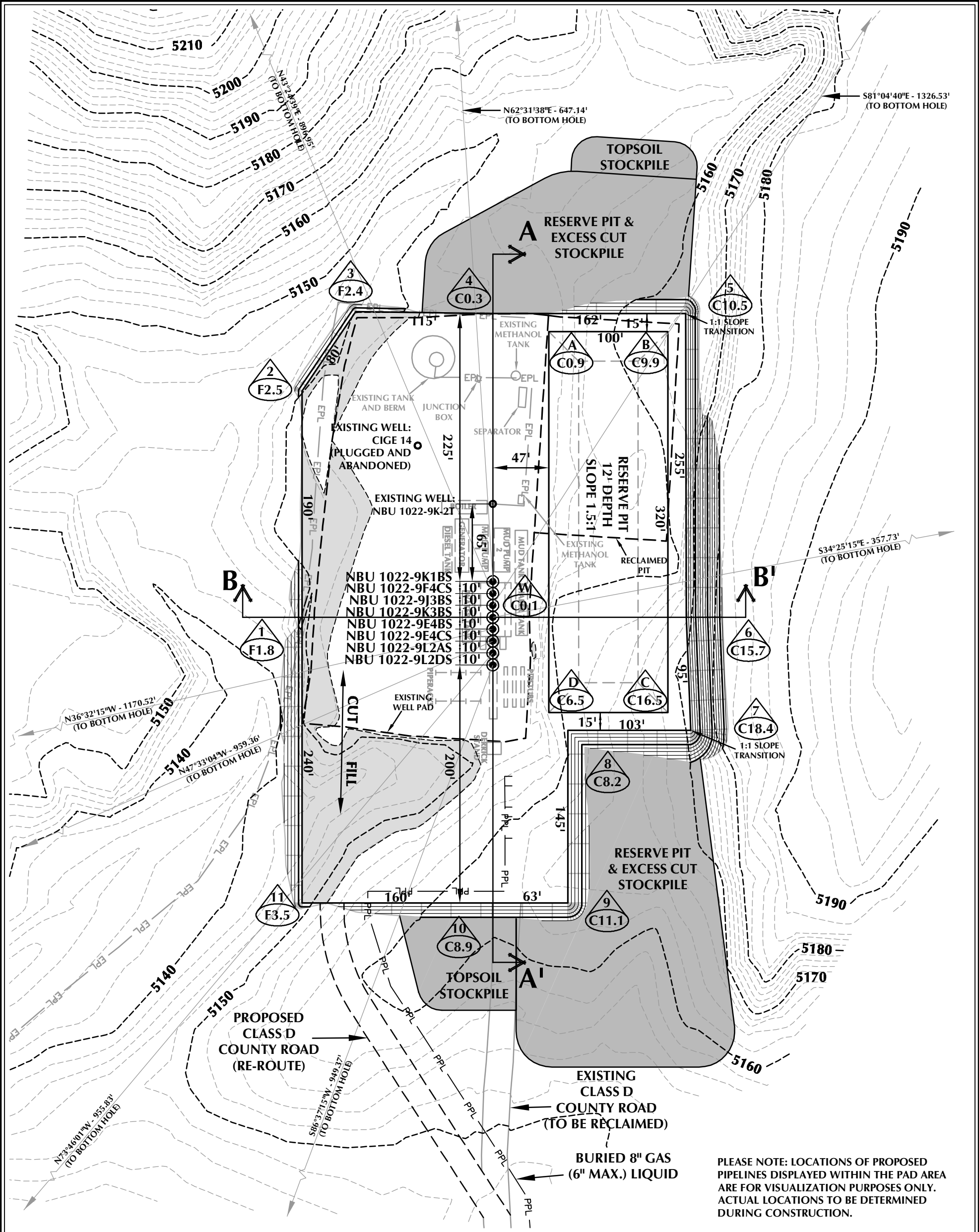


WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 1022-9K1BS	39°57'43.212"N 39.962003°N	109°26'56.902"W 109.449139°W	39°57'43.336"N 39.962038°N	109°26'54.442"W 109.448456°W	2100' FSL 1424' FWL	39°57'46.160"N 39.962822°N	109°26'49.529"W 109.447091°W	39°57'46.284"N 39.962857°N	109°26'47.070"W 109.446408°W	2396' FSL 1999' FWL
NBU 1022-9F4CS	39°57'43.172"N 39.961992°N	109°26'57.020"W 109.449172°W	39°57'43.296"N 39.962027°N	109°26'54.560"W 109.448489°W	2096' FSL 1415' FWL	39°57'49.608"N 39.963780°N	109°26'49.104"W 109.446973°W	39°57'49.733"N 39.963815°N	109°26'46.644"W 109.446290°W	2533' FNL 2033' FWL
NBU 1022-9J3BS	39°57'43.132"N 39.961981°N	109°26'57.137"W 109.449205°W	39°57'43.257"N 39.962016°N	109°26'54.677"W 109.448521°W	2092' FSL 1406' FWL	39°57'41.097"N 39.961416°N	109°26'40.312"W 109.444531°W	39°57'41.221"N 39.961450°N	109°26'37.853"W 109.443848°W	1881' FSL 1792' FEL
NBU 1022-9K3BS	39°57'43.093"N 39.961970°N	109°26'57.255"W 109.449237°W	39°57'43.217"N 39.962005°N	109°26'54.795"W 109.448554°W	2088' FSL 1397' FWL	39°57'40.177"N 39.961160°N	109°26'54.659"W 109.448516°W	39°57'40.301"N 39.961195°N	109°26'52.200"W 109.447833°W	2572' FSL 1598' FWL
NBU 1022-9E4BS	39°57'43.053"N 39.961959°N	109°26'57.372"W 109.449270°W	39°57'43.177"N 39.961994°N	109°26'54.913"W 109.448587°W	2084' FSL 1387' FWL	39°57'52.346"N 39.964541°N	109°27'06.318"W 109.451755°W	39°57'52.470"N 39.964575°N	109°27'03.858"W 109.451072°W	2258' FNL 693' FWL
NBU 1022-9E4CS	39°57'43.014"N 39.961948°N	109°26'57.490"W 109.449303°W	39°57'43.138"N 39.961983°N	109°26'55.030"W 109.448620°W	2080' FSL 1378' FWL	39°57'49.412"N 39.963726°N	109°27'06.578"W 109.451827°W	39°57'49.536"N 39.963760°N	109°27'04.118"W 109.451144°W	2555' FNL 672' FWL
NBU 1022-9L2AS	39°57'42.974"N 39.961937°N	109°26'57.608"W 109.449335°W	39°57'43.098"N 39.961972°N	109°26'55.148"W 109.448652°W	2076' FSL 1369' FWL	39°57'45.615"N 39.962671°N	109°27'09.390"W 109.452608°W	39°57'45.740"N 39.962705°N	109°27'06.930"W 109.451925°W	2347' FSL 452' FWL
NBU 1022-9L2DS	39°57'42.935"N 39.961926°N	109°26'57.725"W 109.449368°W	39°57'43.059"N 39.961961°N	109°26'55.266"W 109.448685°W	2072' FSL 1360' FWL	39°57'42.383"N 39.961773°N	109°27'09.894"W 109.452748°W	39°57'42.507"N 39.961808°N	109°27'07.433"W 109.452065°W	2020' FSL 412' FWL
NBU 1022-9K-2T	39°57'43.469"N 39.962075°N	109°26'56.135"W 109.448926°W	39°57'43.594"N 39.962109°N	109°26'53.675"W 109.448243°W	2126' FSL 1484' FWL					
CIGE 14	39°57'44.234"N 39.962287°N	109°26'55.882"W 109.448856°W	39°57'44.358"N 39.962322°N	109°26'53.422"W 109.448173°W	2203' FSL 1504' FWL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1022-9K1BS	298.5'	574.2'	NBU 1022-9F4CS	651.6'	616.4'	NBU 1022-9J3BS	-205.7'	1310.5'	NBU 1022-9K3BS	-295.1'	202.2'
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1022-9E4BS	940.5'	-696.9'	NBU 1022-9E4CS	647.5'	-707.9'	NBU 1022-9L2AS	267.2'	-917.7'	NBU 1022-9L2DS	-56.0'	-947.7'





PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

WELL PAD - NBU 1022-9K DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5152.2'
FINISHED GRADE ELEVATION = 5152.1'
CUT SLOPES = 1.5:1; EXCEPT AS NOTED
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.82 ACRES
TOTAL DISTURBANCE AREA = 5.37 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-9K

WELL PAD - LOCATION LAYOUT
NBU 1022-9K1BS, NBU 1022-9F4CS,
NBU 1022-9J3BS, NBU 1022-9K3BS,
NBU 1022-9E4BS, NBU 1022-9E4CS,
NBU 1022-9L2AS & NBU 1022-9L2DS
LOCATED IN SECTION 9, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC
1095 Saberton Avenue
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 19,584 C.Y.
TOTAL FILL FOR WELL PAD = 3,613 C.Y.
TOPSOIL @ 6" DEPTH = 1,929 C.Y.
EXCESS MATERIAL = 15,971 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 11,060 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 42,220 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL - PROPOSED PIPELINE
- EPL - EXISTING PIPELINE

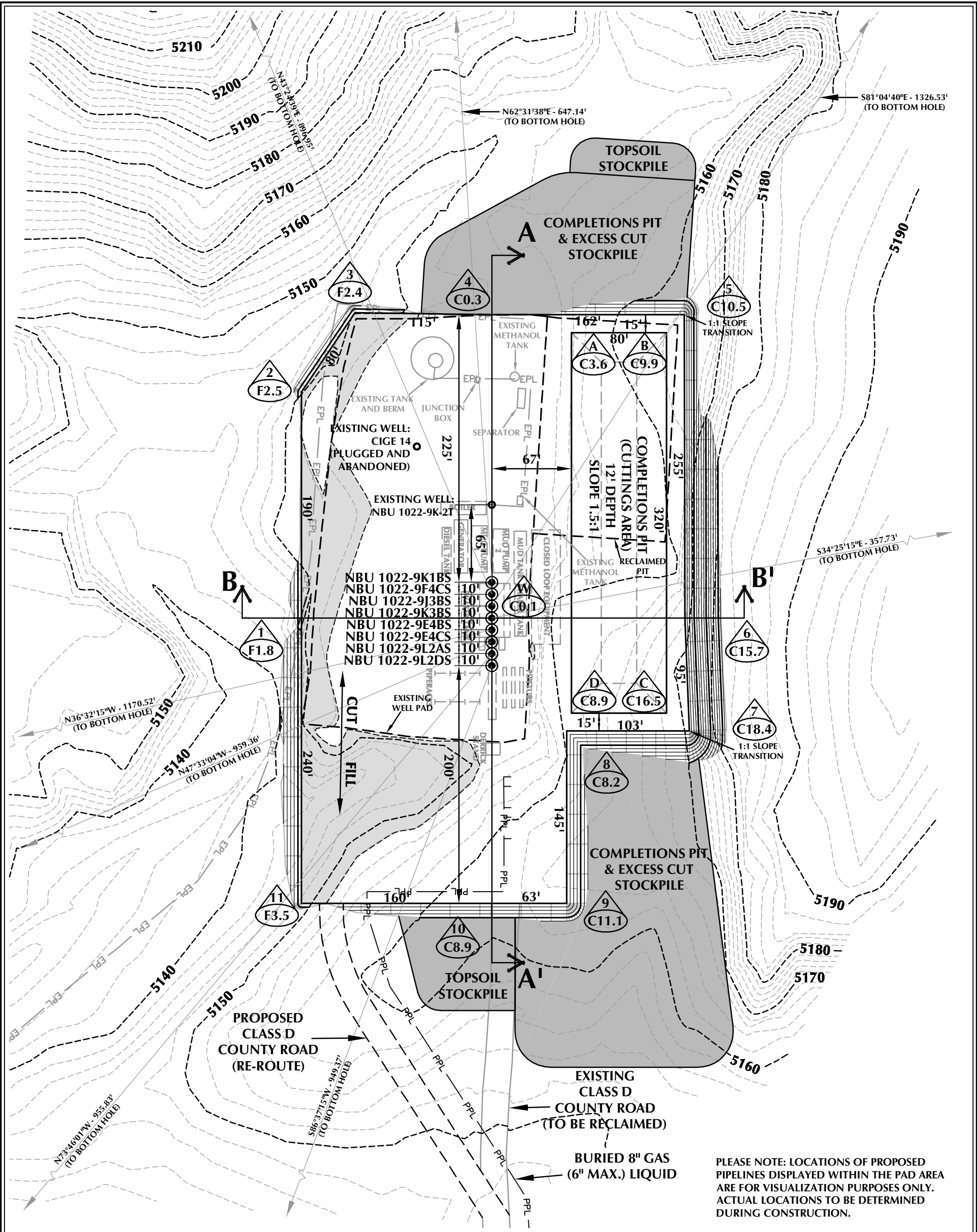


HORIZONTAL 0 40' 80' 1" = 80'
2' CONTOURS

SCALE: 1"=80' DATE: 6/15/15 SHEET NO:

REVISED: 10 10 OF 20

ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078



PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

WELL PAD - NBU 1022-9K (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5152.2'
FINISHED GRADE ELEVATION = 5152.1'
CUT SLOPES = 1.5:1; EXCEPT AS NOTED
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.82 ACRES
TOTAL DISTURBANCE AREA = 5.37 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-9K

WELL PAD - LOCATION LAYOUT
NBU 1022-9K1BS, NBU 1022-9F4CS,
NBU 1022-9J3BS, NBU 1022-9K3BS,
NBU 1022-9E4BS, NBU 1022-9E4CS,
NBU 1022-9L2AS & NBU 1022-9L2DS
LOCATED IN SECTION 9, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH



CONSULTING, LLC
1095 Saberton Avenue
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 19,584 C.Y.
TOTAL FILL FOR WELL PAD = 3,613 C.Y.
TOPSOIL @ 6" DEPTH = 1,929 C.Y.
EXCESS MATERIAL = 15,971 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
+/- 8,370 C.Y.
COMPLETIONS PIT CAPACITY
(2' OF FREEBOARD)
+/- 31,560 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL - PROPOSED PIPELINE
- EPL - EXISTING PIPELINE



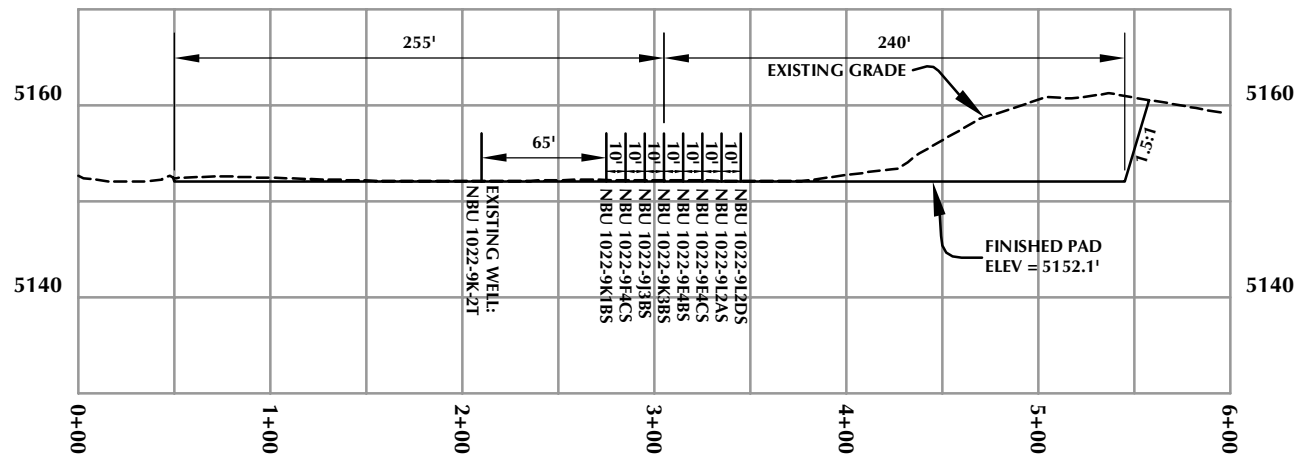
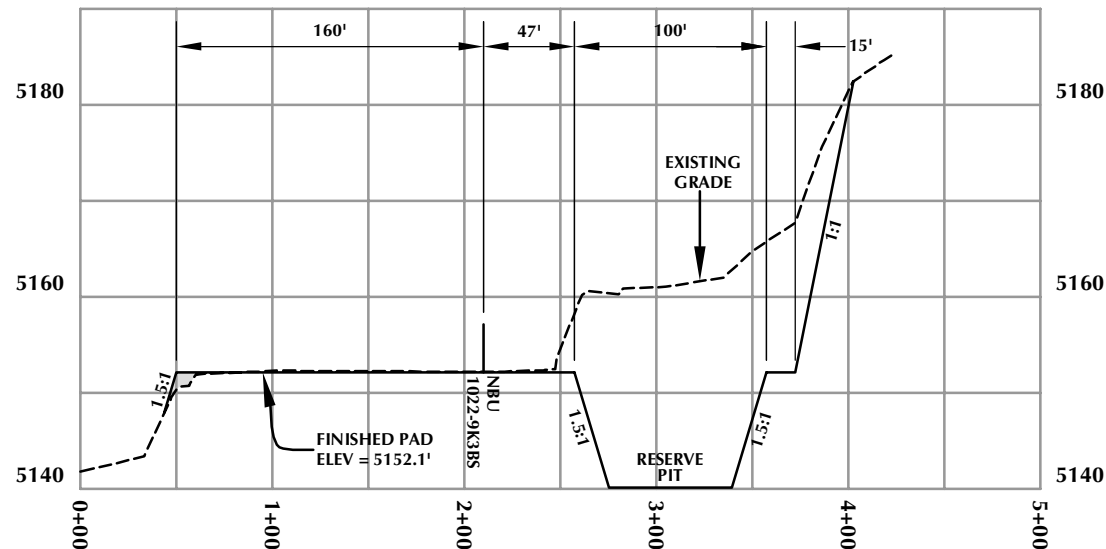
HORIZONTAL 0 40' 80' 1" = 80'

2' CONTOURS

SCALE: 1"=80' DATE: 7/13/15 SHEET NO:

REVISED:

10B 10B OF 20

**CROSS SECTION A-A'****CROSS SECTION B-B'**

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-9K

WELL PAD - CROSS SECTIONS
 NBU 1022-9K1BS, NBU 1022-9F4CS,
 NBU 1022-9J3BS, NBU 1022-9K3BS,
 NBU 1022-9E4BS, NBU 1022-9E4CS,
 NBU 1022-9L2AS & NBU 1022-9L2DS
 LOCATED IN SECTION 9, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH



CONSULTING, LLC
 1095 Saberton Avenue
 Sheridan, WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

TIMBERLINE
ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

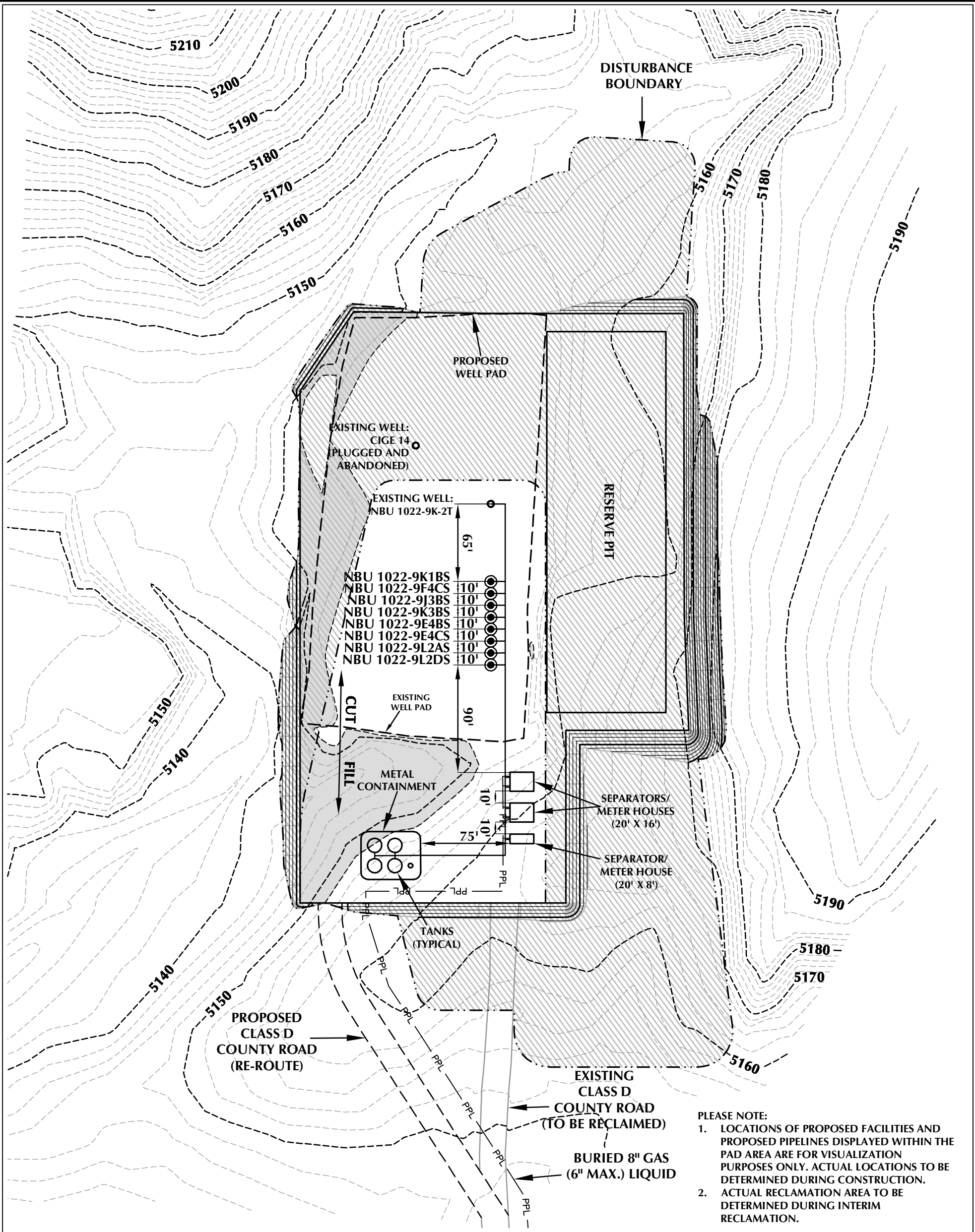
HORIZONTAL 0 50' 100' 1" = 100'
 VERTICAL 0 10' 20' 1" = 20'

SCALE: 1"=100'
 REVISED:

DATE: 6/15/15

SHEET NO:

11 11 OF 20



- PLEASE NOTE:
1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
 2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.

WELL PAD - NBU 1022-9K RECLAMATION DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 5.37 ACRES
RECLAMATION AREA = 3.89 ACRES
TOTAL WELL PAD AREA AFTER RECLAMATION = 1.48 ACRES

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-9K

WELL PAD - RECLAMATION LAYOUT
NBU 1022-9K1BS, NBU 1022-9F4CS,
NBU 1022-9J3BS, NBU 1022-9K3BS,
NBU 1022-9E4BS, NBU 1022-9E4CS,
NBU 1022-9L2AS & NBU 1022-9L2DS
LOCATED IN SECTION 9, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC
1095 Saberton Avenue
Sheridan, WY 82801
Phone 307-674-0609
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209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL - PROPOSED PIPELINE
- EPL - EXISTING PIPELINE
- RECLAMATION AREA



HORIZONTAL 0 40' 80' 1" = 80'

2' CONTOURS

SCALE: 1"=80' DATE: 6/15/15 SHEET NO:

REVISED: 12 12 OF 20

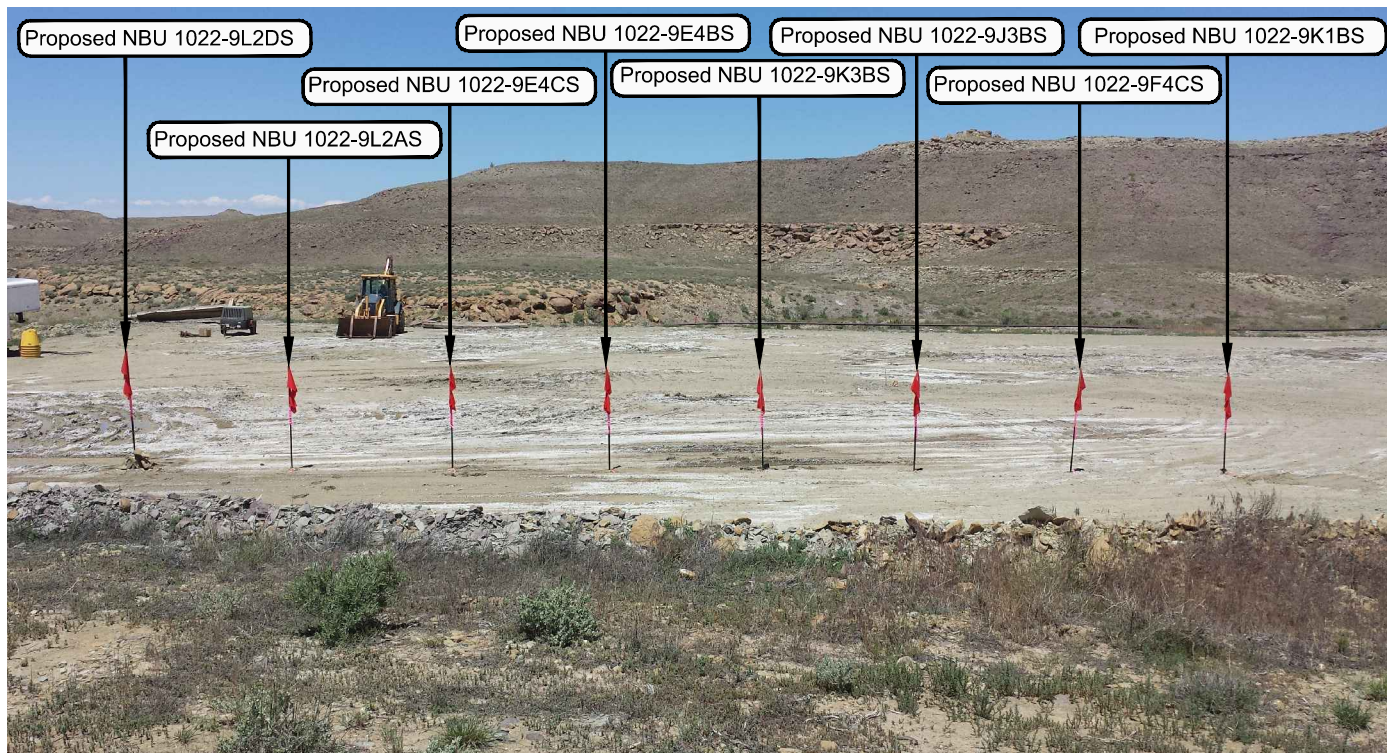


PHOTO VIEW: FROM CORNER #6 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD RE-ROUTE

CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-9K

LOCATION PHOTOS
NBU 1022-9K1BS, NBU 1022-9F4CS,
NBU 1022-9J3BS, NBU 1022-9K3BS,
NBU 1022-9E4BS, NBU 1022-9E4CS,
NBU 1022-9L2AS & NBU 1022-9L2DS
LOCATED IN SECTION 9, T10S, R22E,
S.L.B.&M., UINAH COUNTY, UTAH.



CONSULTING, LLC
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Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE

(435) 789-1365

ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN:
6-8-15

PHOTOS TAKEN BY: A.F.

SHEET NO:

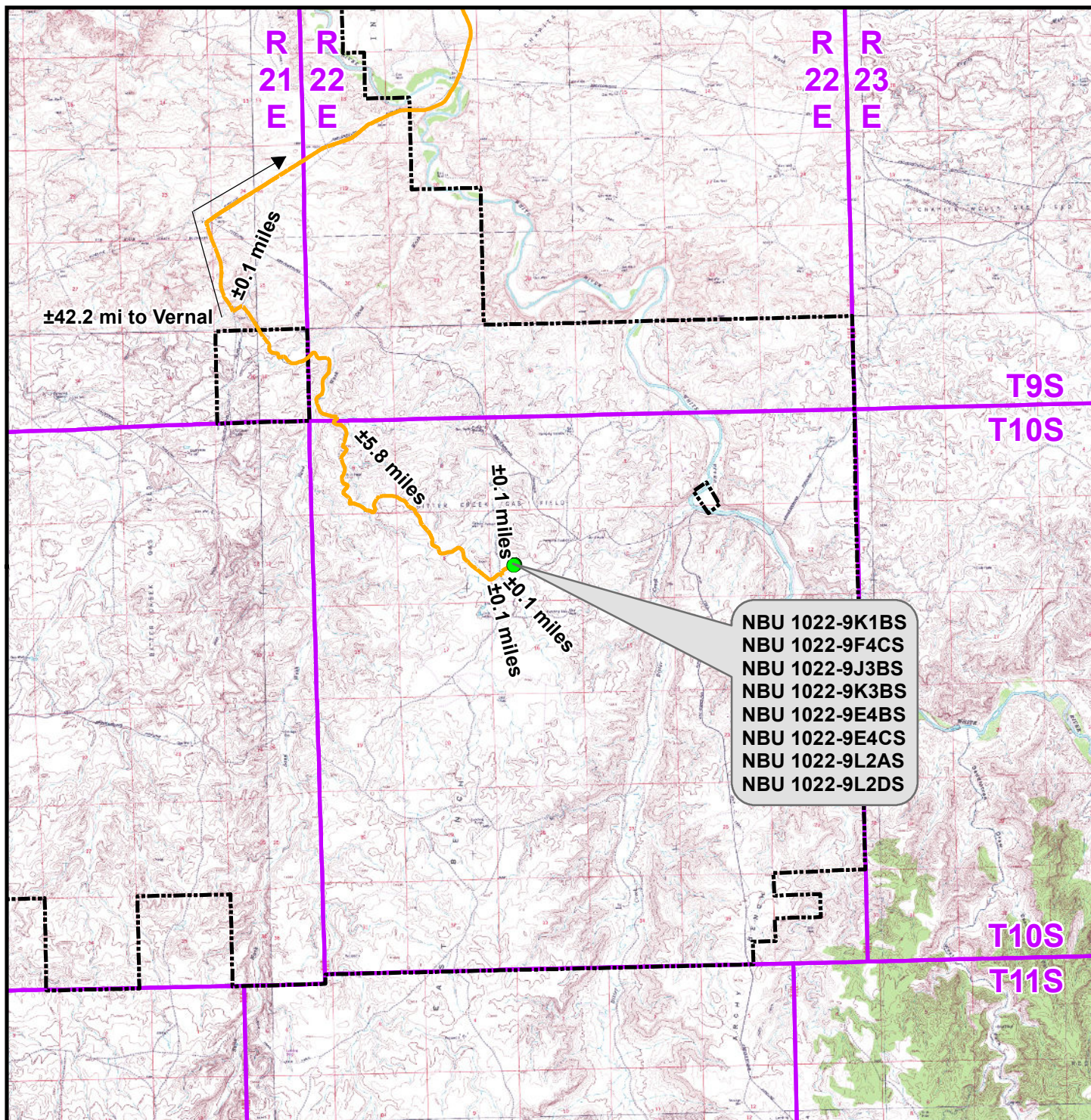
DATE DRAWN:
6-8-15

DRAWN BY: M.W.W.

13

Date Last Revised:

13 OF 20

**Legend**

- Proposed Well Location Natural Buttes Unit Boundary
— Access Route - Proposed

Distance From Well Pad - NBU 1022-9K To Unit Boundary: ±11,065ft

WELL PAD - NBU 1022-9K**TOPO A**

NBU 1022-9K1BS, NBU 1022-9F4CS,
 NBU 1022-9J3BS, NBU 1022-9K3BS,
 NBU 1022-9E4BS, NBU 1022-9E4CS,
 NBU 1022-9L2AS & NBU 1022-9L2DS
 LOCATED IN SECTION 9, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH

**Kerr-McGee Oil &
Gas Onshore L.P.**

1099 18th Street
 Denver, Colorado 80202



CONSULTING, LLC
 1095 Saberton Avenue
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182



SCALE: 1:100,000

NAD83 USP Central

SHEET NO:

DRAWN: TL

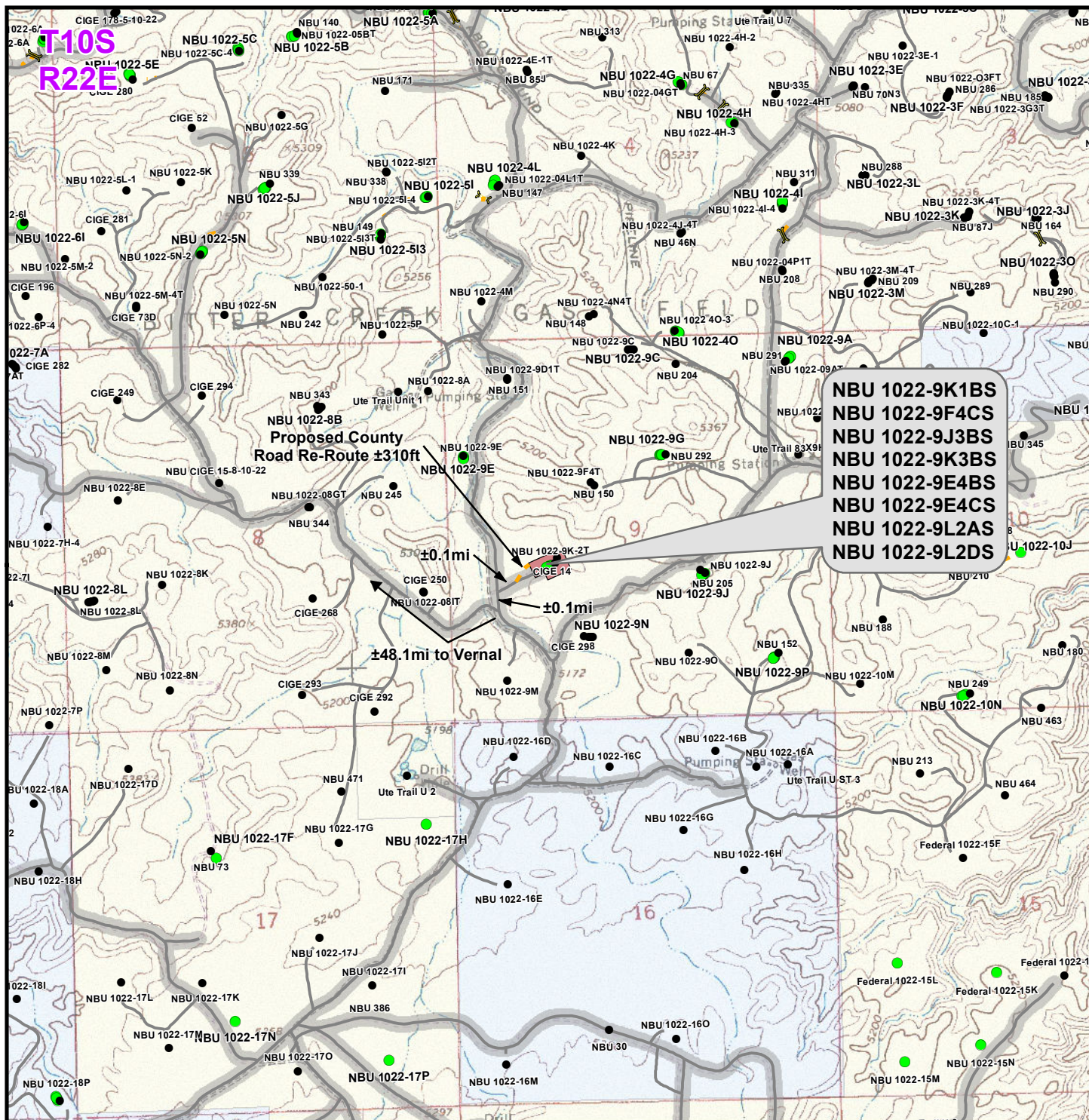
DATE: 15 June 2015

14

REVISED:

DATE:

14 OF 20



NBU 1022-9K1BS
NBU 1022-9F4CS
NBU 1022-9J3BS
NBU 1022-9K3BS
NBU 1022-9E4BS
NBU 1022-9E4CS
NBU 1022-9L2AS
NBU 1022-9L2DS

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Culvert/LWC - Proposed
- Bureau of Land Management
- State
- Indian Reservation
- Private

Total Proposed County Road Re-Route Length: ±310ft

WELL PAD - NBU 1022-9K

TOPO B

NBU 1022-9K1BS, NBU 1022-9F4CS,
NBU 1022-9J3BS, NBU 1022-9K3BS,
NBU 1022-9E4BS, NBU 1022-9E4CS,
NBU 1022-9L2AS & NBU 1022-9L2DS
LOCATED IN SECTION 9, T10S, R22E,
S.L.B.&M., Uintah County, Utah

**Kerr-McGee Oil &
Gas Onshore L.P.**

1099 18th Street
Denver, Colorado 80202



CONSULTING, LLC

1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

SCALE: 1" = 2,000ft

DRAWN: TL

REVISED:

NAD83 USP Central

DATE: 15 June 2015

DATE:

SHEET NO:

15

15 OF 20



Proposed Well	Nearest Well Bore	Footage
NBU 1022-9K1BS	CIGE 14	±532ft
NBU 1022-9F4CS	NBU 1022-9F4T	±448ft
NBU 1022-9J3BS	NBU 205	±771ft
NBU 1022-9K3BS	NBU 1022-9L4AS BH	±349ft
NBU 1022-9E4BS	NBU 1022-9E	±758ft
NBU 1022-9E4CS	CIGE 14	±984ft
NBU 1022-9L2AS	NBU 1022-08IT	±981ft
NBU 1022-9L2DS	CIGE 250	±796ft

 Well - Proposed  Well Path  Producing  Deferred  Active Injector  Plugged & Abandoned
 Bottom Hole - Proposed  Well Pad  Spudded  Cancelled  Location Abandoned  Shut-In
 Bottom Hole - Existing  Well - 1 Mile Radius  APD Approved  Temporarily Abandoned
 Preliminary Location

TOPO C
NBU 1022-9K1BS, NBU 1022-9F4CS,
NBU 1022-9J3BS, NBU 1022-9K3BS,
NBU 1022-9E4BS, NBU 1022-9E4CS,
NBU 1022-9L2AS & NBU 1022-9L2DS
LOCATED IN SECTION 9, T10S, R22E,
S.L.B.&M., Uintah County, Utah

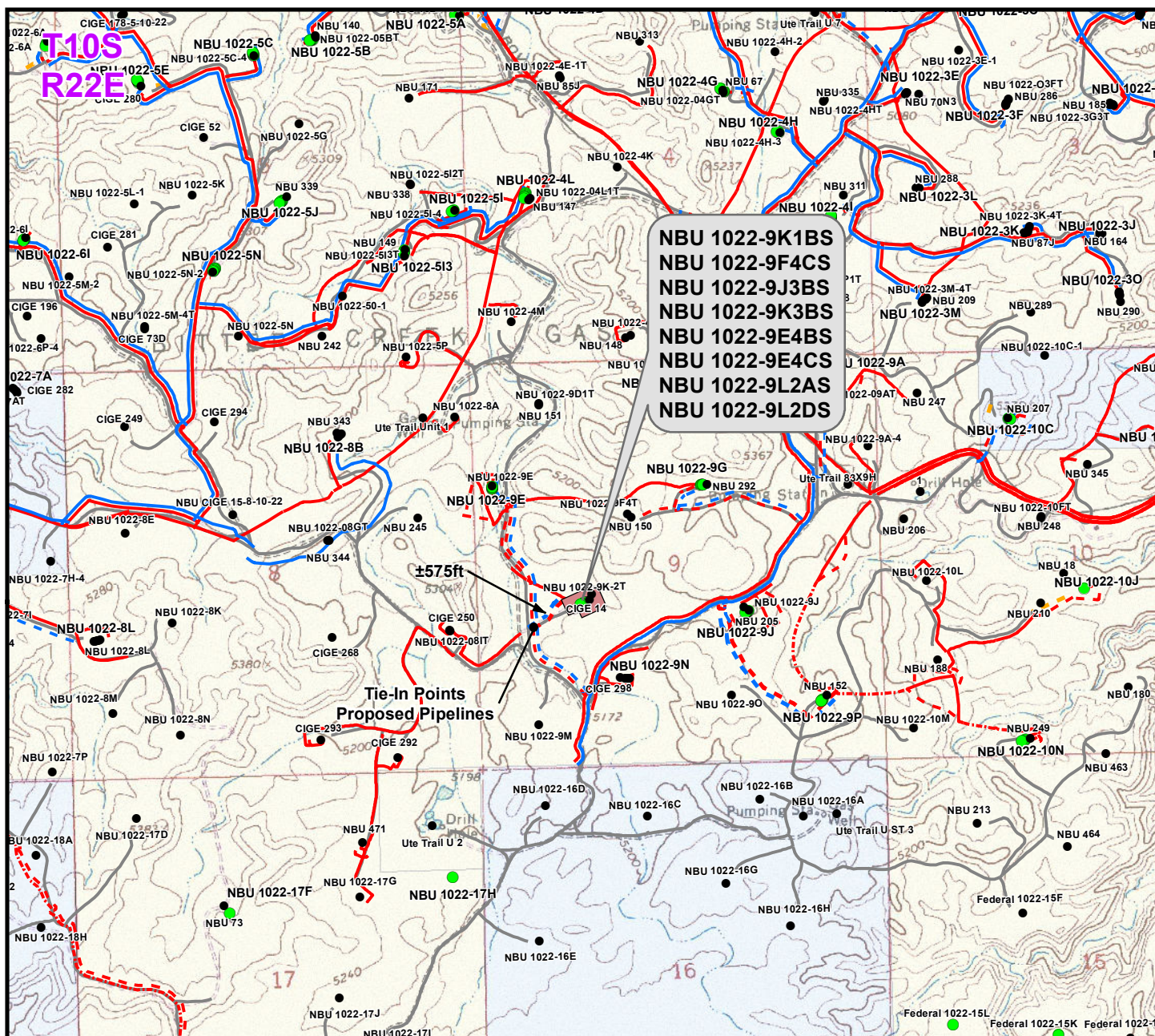
**1099 18th Street
Denver, Colorado 80202**



SHEET NO:

16

16 OF 20



Proposed Liquid Pipeline	Length
Buried 6" (Max.) (Separator to Edge of Pad)	±230ft
Buried 6" (Max.) (Edge of Pad to Proposed 6" (Max.) Liquid Pipeline)	±575ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±805ft

Proposed Gas Pipeline	Length
Buried 8" (Meter House to Edge of Pad)	±230ft
Buried 8" (Edge of Pad to Proposed 10" Gas Pipeline)	±575ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±805ft

Legend

● Well - Proposed	- - - Gas Pipeline - Proposed	- - - Liquid Pipeline - Proposed	- - - Road - Proposed	■ Bureau of Land Management	■ State
● Well - Existing	- - - Gas Pipeline - To Be Upgraded	- - - Liquid Pipeline - Existing	- - - Road - Existing	■ Indian Reservation	■ Private
■ Well Pad	- - - Gas Pipeline - Existing				

WELL PAD - NBU 1022-9K

TOPO D
 NBU 1022-9K1BS, NBU 1022-9F4CS,
 NBU 1022-9J3BS, NBU 1022-9K3BS,
 NBU 1022-9E4BS, NBU 1022-9E4CS,
 NBU 1022-9L2AS & NBU 1022-9L2DS
 LOCATED IN SECTION 9, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

**Kerr-McGee Oil &
 Gas Onshore L.P.**

1099 18th Street
 Denver, Colorado 80202



CONSULTING, LLC
 1095 Saberton Avenue
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182

SCALE: 1" = 2,000ft

DRAWN: TL

REVISED:

NAD83 USP Central

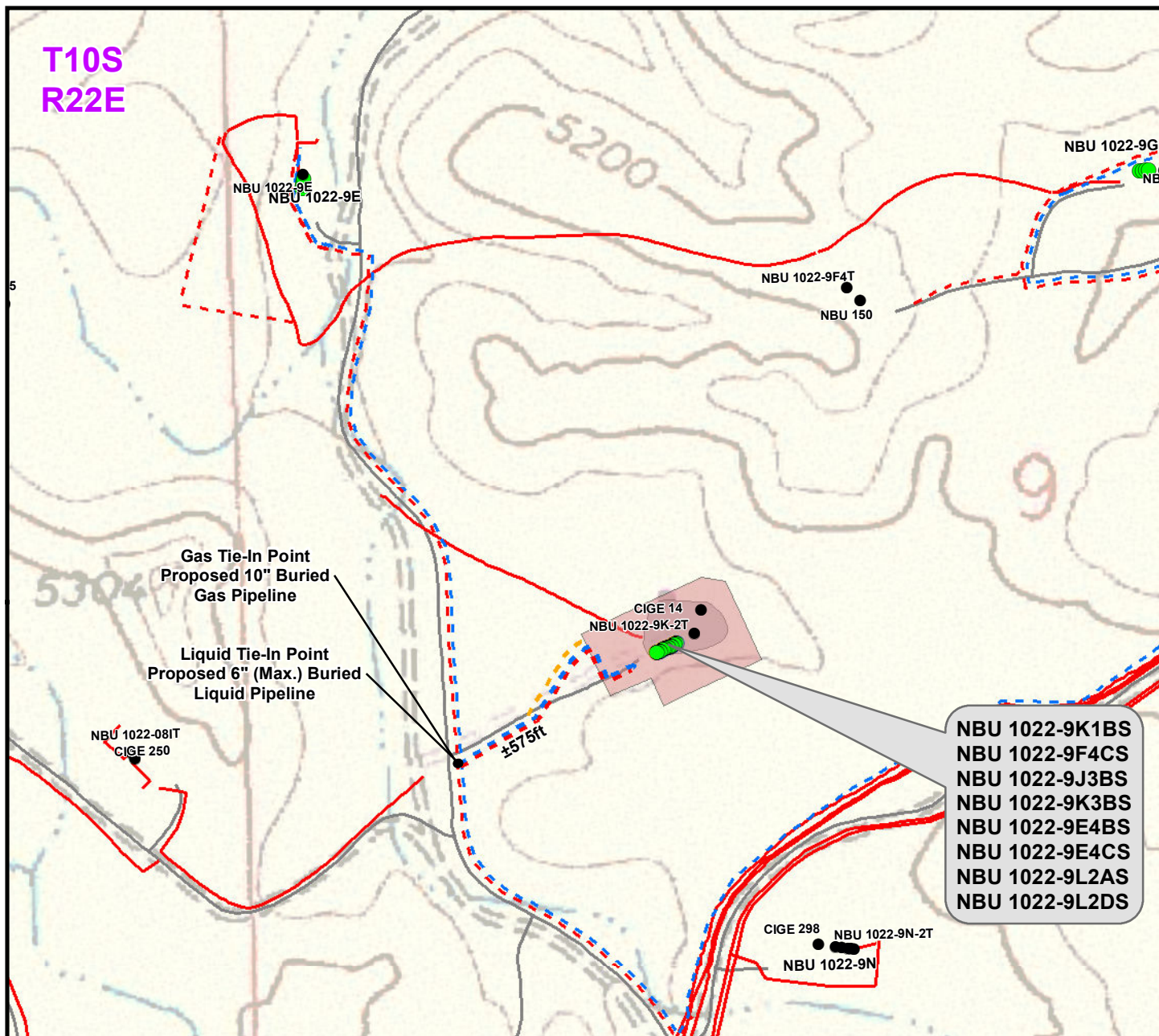
DATE: 13 July 2015

DATE:

SHEET NO:

17

17 OF 20



Proposed Liquid Pipeline	Length
Buried 6" (Max.) (Separator to Edge of Pad)	±230ft
Buried 6" (Max.) (Edge of Pad to Proposed 6" (Max.) Liquid Pipeline)	±575ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±805ft

Proposed Gas Pipeline	Length
Buried 8" (Meter House to Edge of Pad)	±230ft
Buried 8" (Edge of Pad to Proposed 10" Gas Pipeline)	±575ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±805ft

Legend

- Well - Proposed
 Well Pad - Proposed
 --- Gas Pipeline - Proposed
 --- Liquid Pipeline - Proposed
 --- Road - Proposed
 Bureau of Land Management
- Well - Existing
 Well Pad - Existing
 --- Gas Pipeline - To Be Upgraded
 --- Liquid Pipeline - Existing
 --- Road - Existing
 Indian Reservation
- Gas Pipeline - Existing
 State
 Private

WELL PAD - NBU 1022-9K

TOPO D2 (PAD & PIPELINE DETAIL)
 NBU 1022-9K1BS, NBU 1022-9F4CS,
 NBU 1022-9J3BS, NBU 1022-9K3BS,
 NBU 1022-9E4BS, NBU 1022-9E4CS,
 NBU 1022-9L2AS & NBU 1022-9L2DS
 LOCATED IN SECTION 9, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

**Kerr-McGee Oil &
Gas Onshore L.P.**

1099 18th Street
Denver, Colorado 80202



CONSULTING, LLC
 1095 Saberton Avenue
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182

SCALE: 1" = 500ft

NAD83 USP Central

DRAWN: TL

DATE: 15 June 2015

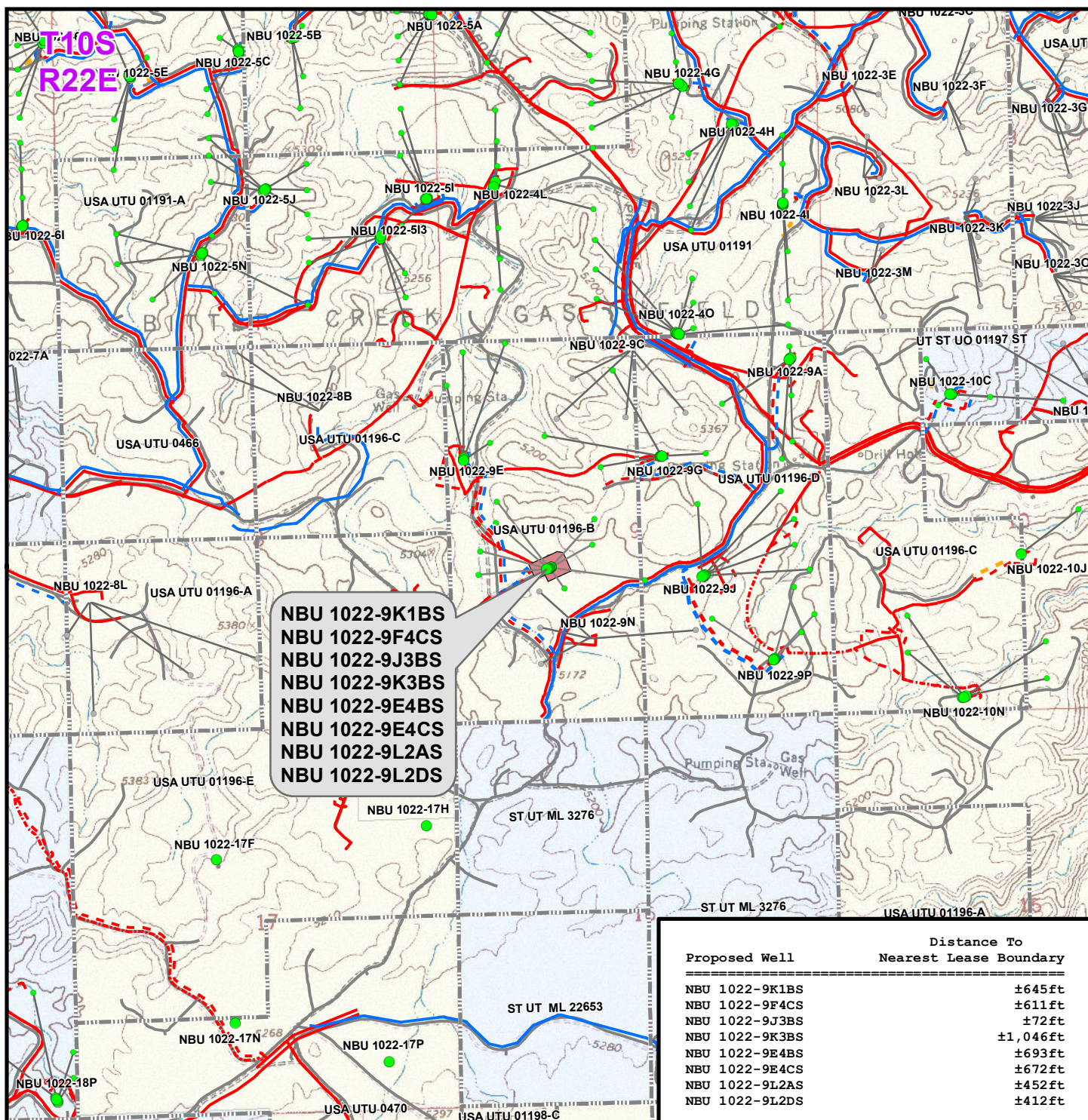
REVISED:

DATE:

SHEET NO:

18

18 OF 20



Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 1022-9K

TOPO E

NBU 1022-9K1BS, NBU 1022-9F4CS,
NBU 1022-9J3BS, NBU 1022-9K3BS,
NBU 1022-9E4BS, NBU 1022-9E4CS,
NBU 1022-9L2AS & NBU 1022-9L2DS
LOCATED IN SECTION 9, T10S, R22E,
S.L.B.&M., Uintah County, Utah

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202



CONSULTING, LLC

1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

SCALE: 1" = 2,000ft

DRAWN: TL

REVISED:

NAD83 USP Central

DATE: 13 July 2015

DATE:

SHEET NO:

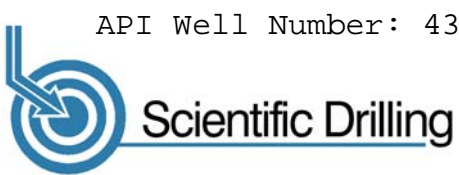
19

19 OF 20

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 1022-9K
WELLS - NBU 1022-9K1BS, NBU 1022-9F4CS, NBU 1022-9J3BS,
NBU 1022-9K3BS, NBU 1022-9E4BS, NBU 1022-9E4CS,
NBU 1022-9L2AS & NBU 1022-9L2DS
Section 9, T10S, R22E, S.L.B.&M., Uintah County, Utah.

From the intersection of U.S. Highway 40 and 500 East street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.7 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 5.8 miles to a third Class D County Road to the north. Exit left and proceed in a northerly direction along the third Class D County Road approximately 0.1 miles to a service road to the northeast. Exit right and proceed in a northeasterly direction along the service road approximately 0.1 miles to the proposed access road. Follow road flags in a northeasterly direction approximately 310 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 48.4 miles in a southerly direction.



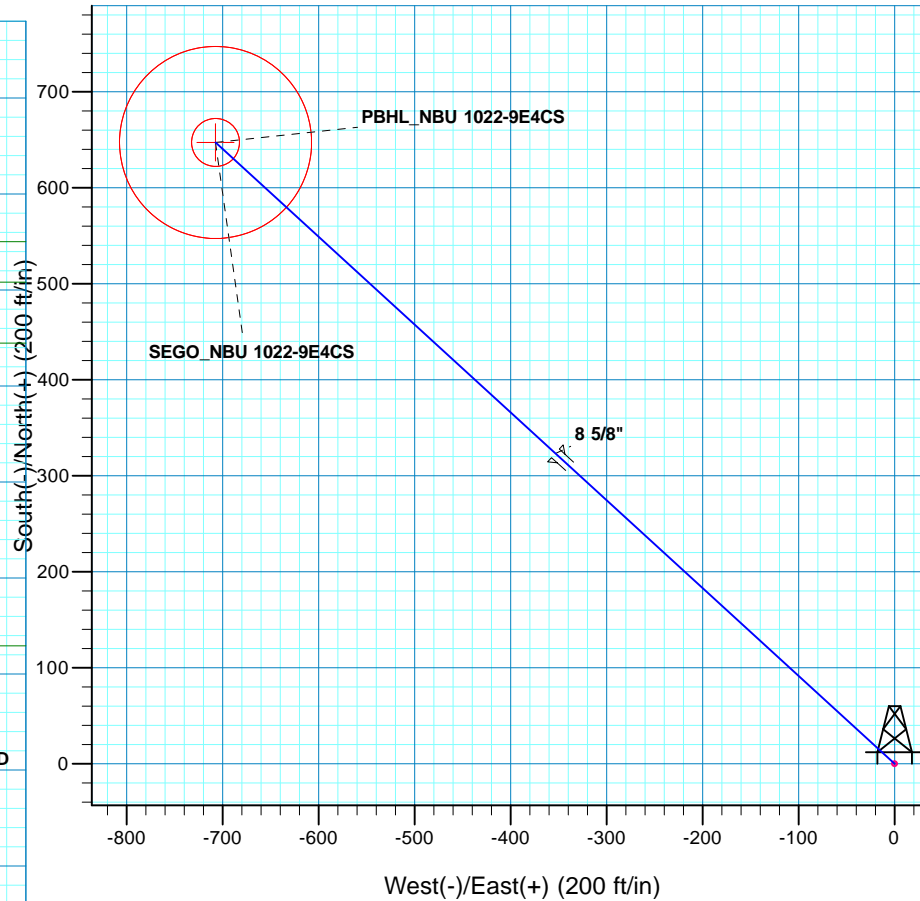
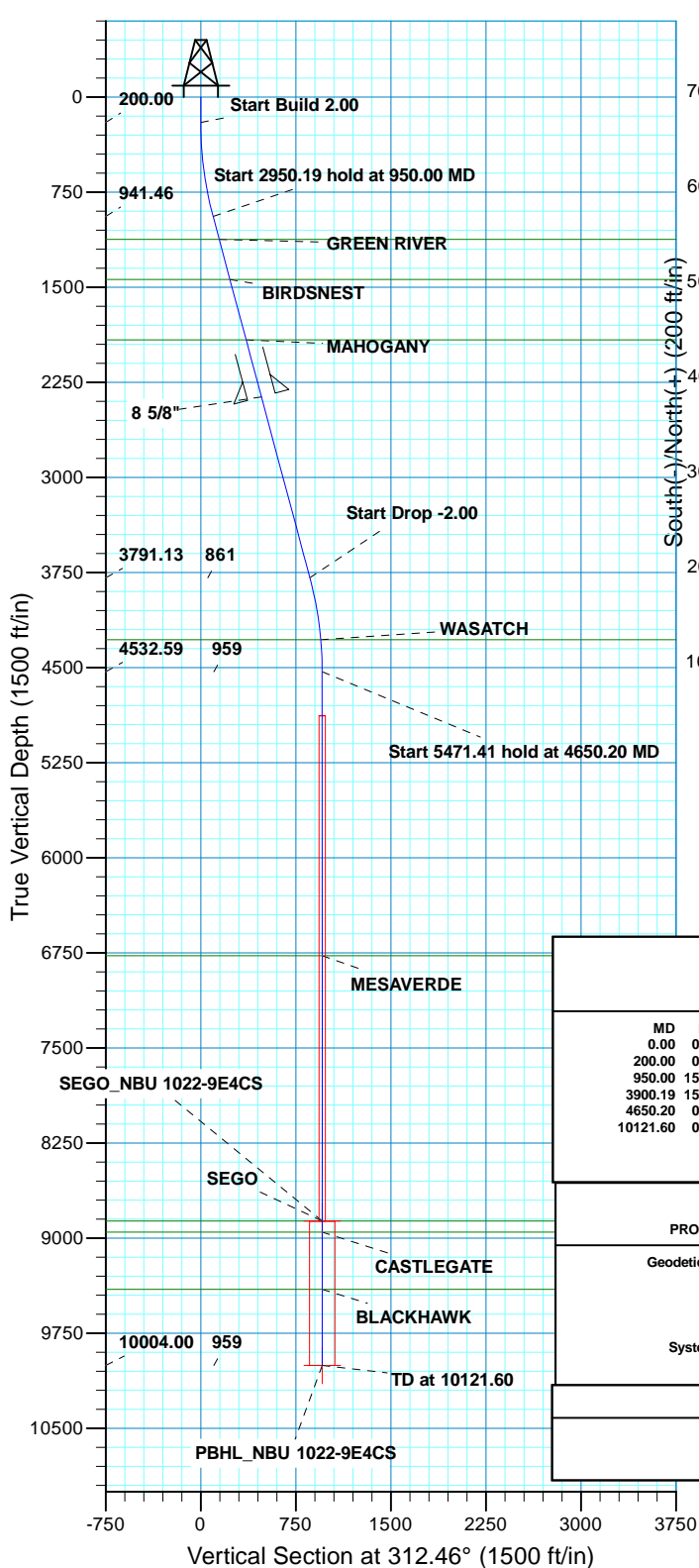
WELL DETAILS: NBU 1022-9E4CS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14515981.77	2075143.77	39.9619830	-109.4486200

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8866.00	647.21	-707.39	14516616.58	2074425.23	39.9637600	-109.4511440	Circle (Radius: 25.00)
PBHL	10004.00	647.21	-707.39	14516616.58	2074425.23	39.9637600	-109.4511440	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00
950.00	15.00	312.46	941.46	65.89	-72.02	2.00	312.46	97.62
3900.19	15.00	312.46	3791.13	581.32	-635.37	0.00	0.00	861.18
4650.20	0.00	0.00	4532.59	647.21	-707.39	2.00	180.00	958.80
10121.60	0.00	0.00	10004.00	647.21	-707.39	0.00	0.00	958.80

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1123.00	1137.94	GREEN RIVER
1439.00	1465.09	BIRDSNEST
1914.00	1956.85	MAHOGANY
4280.00	4397.27	WASATCH
6773.00	6890.60	MESAVERDE
8866.00	8983.60	SEGO
8953.00	9070.60	CASTLEGATE
9404.00	9521.60	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2364.00	2422.72	8 5/8"	8.625



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

NBU 1022-9K PAD

NBU 1022-9E4CS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

12 August, 2015



Database:	Denver Sales	Local Co-ordinate Reference:	Well NBU 1022-9E4CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5152 & KB 4 @ 5156.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5152 & KB 4 @ 5156.00ft (ASSUMED)
Site:	NBU 1022-9K PAD	North Reference:	True
Well:	NBU 1022-9E4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 1022-9K PAD, SECTION 9 T10S R22E		
Site Position:		Northing:	14,516,002.60 usft
From:	Lat/Long	Easting:	2,075,189.38 usft
Position Uncertainty:	3.28 ft	Slot Radius:	13.200 in
		Latitude:	39.9620380
		Longitude:	-109.4484560
		Grid Convergence:	1.00 °

Well	NBU 1022-9E4CS, 2080 FSL 1378 FWL		
Well Position	+N/-S	-20.03 ft	Northing:
	+E/-W	-45.97 ft	Easting:
Position Uncertainty	3.28 ft	Wellhead Elevation:	0.00 ft
		Latitude:	39.9619830
		Longitude:	-109.4486200
		Ground Level:	5,152.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	8/6/2015	10.66	65.73	51,761

Design	PLAN #1 PRELIMINARY			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	312.46

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
950.00	15.00	312.46	941.46	65.89	-72.02	2.00	2.00	0.00	312.46	
3,900.19	15.00	312.46	3,791.13	581.32	-635.37	0.00	0.00	0.00	0.00	
4,650.20	0.00	0.00	4,532.59	647.21	-707.39	2.00	-2.00	0.00	180.00	
10,121.60	0.00	0.00	10,004.00	647.21	-707.39	0.00	0.00	0.00	0.00	PBHL_NBU 1022-9E4

Database:	Denver Sales	Local Co-ordinate Reference:	Well NBU 1022-9E4CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5152 & KB 4 @ 5156.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5152 & KB 4 @ 5156.00ft (ASSUMED)
Site:	NBU 1022-9K PAD	North Reference:	True
Well:	NBU 1022-9E4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
300.00	2.00	312.46	299.98	1.18	-1.29	1.75	2.00	2.00	0.00
400.00	4.00	312.46	399.84	4.71	-5.15	6.98	2.00	2.00	0.00
500.00	6.00	312.46	499.45	10.59	-11.58	15.69	2.00	2.00	0.00
600.00	8.00	312.46	598.70	18.82	-20.57	27.88	2.00	2.00	0.00
700.00	10.00	312.46	697.47	29.38	-32.11	43.52	2.00	2.00	0.00
800.00	12.00	312.46	795.62	42.26	-46.19	62.60	2.00	2.00	0.00
900.00	14.00	312.46	893.06	57.44	-62.78	85.10	2.00	2.00	0.00
950.00	15.00	312.46	941.46	65.89	-72.02	97.62	2.00	2.00	0.00
Start 2950.19 hold at 950.00 MD									
1,000.00	15.00	312.46	989.76	74.63	-81.57	110.56	0.00	0.00	0.00
1,100.00	15.00	312.46	1,086.35	92.10	-100.66	136.44	0.00	0.00	0.00
1,137.94	15.00	312.46	1,123.00	98.73	-107.91	146.26	0.00	0.00	0.00
GREEN RIVER									
1,200.00	15.00	312.46	1,182.94	109.57	-119.76	162.32	0.00	0.00	0.00
1,300.00	15.00	312.46	1,279.54	127.04	-138.85	188.20	0.00	0.00	0.00
1,400.00	15.00	312.46	1,376.13	144.51	-157.95	214.08	0.00	0.00	0.00
1,465.09	15.00	312.46	1,439.00	155.88	-170.38	230.93	0.00	0.00	0.00
BIRDSNEST									
1,500.00	15.00	312.46	1,472.72	161.98	-177.05	239.97	0.00	0.00	0.00
1,600.00	15.00	312.46	1,569.31	179.45	-196.14	265.85	0.00	0.00	0.00
1,700.00	15.00	312.46	1,665.91	196.93	-215.24	291.73	0.00	0.00	0.00
1,800.00	15.00	312.46	1,762.50	214.40	-234.33	317.61	0.00	0.00	0.00
1,900.00	15.00	312.46	1,859.09	231.87	-253.43	343.49	0.00	0.00	0.00
1,956.85	15.00	312.46	1,914.00	241.80	-264.28	358.21	0.00	0.00	0.00
MAHOGANY									
2,000.00	15.00	312.46	1,955.68	249.34	-272.52	369.38	0.00	0.00	0.00
2,100.00	15.00	312.46	2,052.28	266.81	-291.62	395.26	0.00	0.00	0.00
2,200.00	15.00	312.46	2,148.87	284.28	-310.71	421.14	0.00	0.00	0.00
2,300.00	15.00	312.46	2,245.46	301.75	-329.81	447.02	0.00	0.00	0.00
2,400.00	15.00	312.46	2,342.05	319.22	-348.90	472.90	0.00	0.00	0.00
2,422.72	15.00	312.46	2,364.00	323.19	-353.24	478.78	0.00	0.00	0.00
8 5/8"									
2,500.00	15.00	312.46	2,438.65	336.69	-368.00	498.78	0.00	0.00	0.00
2,600.00	15.00	312.46	2,535.24	354.16	-387.10	524.67	0.00	0.00	0.00
2,700.00	15.00	312.46	2,631.83	371.63	-406.19	550.55	0.00	0.00	0.00
2,800.00	15.00	312.46	2,728.42	389.11	-425.29	576.43	0.00	0.00	0.00
2,900.00	15.00	312.46	2,825.02	406.58	-444.38	602.31	0.00	0.00	0.00
3,000.00	15.00	312.46	2,921.61	424.05	-463.48	628.19	0.00	0.00	0.00
3,100.00	15.00	312.46	3,018.20	441.52	-482.57	654.08	0.00	0.00	0.00
3,200.00	15.00	312.46	3,114.80	458.99	-501.67	679.96	0.00	0.00	0.00
3,300.00	15.00	312.46	3,211.39	476.46	-520.76	705.84	0.00	0.00	0.00
3,400.00	15.00	312.46	3,307.98	493.93	-539.86	731.72	0.00	0.00	0.00
3,500.00	15.00	312.46	3,404.57	511.40	-558.96	757.60	0.00	0.00	0.00
3,600.00	15.00	312.46	3,501.17	528.87	-578.05	783.49	0.00	0.00	0.00
3,700.00	15.00	312.46	3,597.76	546.34	-597.15	809.37	0.00	0.00	0.00
3,800.00	15.00	312.46	3,694.35	563.82	-616.24	835.25	0.00	0.00	0.00
3,900.00	15.00	312.46	3,790.94	581.29	-635.34	861.13	0.00	0.00	0.00
3,900.19	15.00	312.46	3,791.13	581.32	-635.37	861.18	0.00	0.00	0.00
Start Drop -2.00									

Database:	Denver Sales	Local Co-ordinate Reference:	Well NBU 1022-9E4CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5152 & KB 4 @ 5156.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5152 & KB 4 @ 5156.00ft (ASSUMED)
Site:	NBU 1022-9K PAD	North Reference:	True
Well:	NBU 1022-9E4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,000.00	13.00	312.46	3,887.97	597.62	-653.19	885.33	2.00	-2.00	0.00
4,100.00	11.00	312.46	3,985.77	611.66	-668.53	906.13	2.00	-2.00	0.00
4,200.00	9.00	312.46	4,084.25	623.38	-681.35	923.50	2.00	-2.00	0.00
4,300.00	7.00	312.46	4,183.27	632.78	-691.62	937.42	2.00	-2.00	0.00
4,397.27	5.06	312.46	4,280.00	639.68	-699.16	947.64	2.00	-2.00	0.00
WASATCH									
4,400.00	5.00	312.46	4,282.72	639.84	-699.34	947.88	2.00	-2.00	0.00
4,500.00	3.00	312.46	4,382.47	644.56	-704.49	954.86	2.00	-2.00	0.00
4,600.00	1.00	312.46	4,482.40	646.92	-707.07	958.36	2.00	-2.00	0.00
4,650.20	0.00	0.00	4,532.59	647.21	-707.39	958.80	2.00	-2.00	0.00
Start 5471.41 hold at 4650.20 MD									
4,700.00	0.00	0.00	4,582.40	647.21	-707.39	958.80	0.00	0.00	0.00
4,800.00	0.00	0.00	4,682.40	647.21	-707.39	958.80	0.00	0.00	0.00
4,900.00	0.00	0.00	4,782.40	647.21	-707.39	958.80	0.00	0.00	0.00
5,000.00	0.00	0.00	4,882.40	647.21	-707.39	958.80	0.00	0.00	0.00
5,100.00	0.00	0.00	4,982.40	647.21	-707.39	958.80	0.00	0.00	0.00
5,200.00	0.00	0.00	5,082.40	647.21	-707.39	958.80	0.00	0.00	0.00
5,300.00	0.00	0.00	5,182.40	647.21	-707.39	958.80	0.00	0.00	0.00
5,400.00	0.00	0.00	5,282.40	647.21	-707.39	958.80	0.00	0.00	0.00
5,500.00	0.00	0.00	5,382.40	647.21	-707.39	958.80	0.00	0.00	0.00
5,600.00	0.00	0.00	5,482.40	647.21	-707.39	958.80	0.00	0.00	0.00
5,700.00	0.00	0.00	5,582.40	647.21	-707.39	958.80	0.00	0.00	0.00
5,800.00	0.00	0.00	5,682.40	647.21	-707.39	958.80	0.00	0.00	0.00
5,900.00	0.00	0.00	5,782.40	647.21	-707.39	958.80	0.00	0.00	0.00
6,000.00	0.00	0.00	5,882.40	647.21	-707.39	958.80	0.00	0.00	0.00
6,100.00	0.00	0.00	5,982.40	647.21	-707.39	958.80	0.00	0.00	0.00
6,200.00	0.00	0.00	6,082.40	647.21	-707.39	958.80	0.00	0.00	0.00
6,300.00	0.00	0.00	6,182.40	647.21	-707.39	958.80	0.00	0.00	0.00
6,400.00	0.00	0.00	6,282.40	647.21	-707.39	958.80	0.00	0.00	0.00
6,500.00	0.00	0.00	6,382.40	647.21	-707.39	958.80	0.00	0.00	0.00
6,600.00	0.00	0.00	6,482.40	647.21	-707.39	958.80	0.00	0.00	0.00
6,700.00	0.00	0.00	6,582.40	647.21	-707.39	958.80	0.00	0.00	0.00
6,800.00	0.00	0.00	6,682.40	647.21	-707.39	958.80	0.00	0.00	0.00
6,890.60	0.00	0.00	6,773.00	647.21	-707.39	958.80	0.00	0.00	0.00
MESAVERDE									
6,900.00	0.00	0.00	6,782.40	647.21	-707.39	958.80	0.00	0.00	0.00
7,000.00	0.00	0.00	6,882.40	647.21	-707.39	958.80	0.00	0.00	0.00
7,100.00	0.00	0.00	6,982.40	647.21	-707.39	958.80	0.00	0.00	0.00
7,200.00	0.00	0.00	7,082.40	647.21	-707.39	958.80	0.00	0.00	0.00
7,300.00	0.00	0.00	7,182.40	647.21	-707.39	958.80	0.00	0.00	0.00
7,400.00	0.00	0.00	7,282.40	647.21	-707.39	958.80	0.00	0.00	0.00
7,500.00	0.00	0.00	7,382.40	647.21	-707.39	958.80	0.00	0.00	0.00
7,600.00	0.00	0.00	7,482.40	647.21	-707.39	958.80	0.00	0.00	0.00
7,700.00	0.00	0.00	7,582.40	647.21	-707.39	958.80	0.00	0.00	0.00
7,800.00	0.00	0.00	7,682.40	647.21	-707.39	958.80	0.00	0.00	0.00
7,900.00	0.00	0.00	7,782.40	647.21	-707.39	958.80	0.00	0.00	0.00
8,000.00	0.00	0.00	7,882.40	647.21	-707.39	958.80	0.00	0.00	0.00
8,100.00	0.00	0.00	7,982.40	647.21	-707.39	958.80	0.00	0.00	0.00
8,200.00	0.00	0.00	8,082.40	647.21	-707.39	958.80	0.00	0.00	0.00
8,300.00	0.00	0.00	8,182.40	647.21	-707.39	958.80	0.00	0.00	0.00
8,400.00	0.00	0.00	8,282.40	647.21	-707.39	958.80	0.00	0.00	0.00
8,500.00	0.00	0.00	8,382.40	647.21	-707.39	958.80	0.00	0.00	0.00
8,600.00	0.00	0.00	8,482.40	647.21	-707.39	958.80	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well NBU 1022-9E4CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5152 & KB 4 @ 5156.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5152 & KB 4 @ 5156.00ft (ASSUMED)
Site:	NBU 1022-9K PAD	North Reference:	True
Well:	NBU 1022-9E4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,700.00	0.00	0.00	8,582.40	647.21	-707.39	958.80	0.00	0.00	0.00
8,800.00	0.00	0.00	8,682.40	647.21	-707.39	958.80	0.00	0.00	0.00
8,900.00	0.00	0.00	8,782.40	647.21	-707.39	958.80	0.00	0.00	0.00
8,983.60	0.00	0.00	8,866.00	647.21	-707.39	958.80	0.00	0.00	0.00
SEGO - SEGO_NBU 1022-9E4CS									
9,000.00	0.00	0.00	8,882.40	647.21	-707.39	958.80	0.00	0.00	0.00
9,070.60	0.00	0.00	8,953.00	647.21	-707.39	958.80	0.00	0.00	0.00
CASTLEGATE									
9,100.00	0.00	0.00	8,982.40	647.21	-707.39	958.80	0.00	0.00	0.00
9,200.00	0.00	0.00	9,082.40	647.21	-707.39	958.80	0.00	0.00	0.00
9,300.00	0.00	0.00	9,182.40	647.21	-707.39	958.80	0.00	0.00	0.00
9,400.00	0.00	0.00	9,282.40	647.21	-707.39	958.80	0.00	0.00	0.00
9,500.00	0.00	0.00	9,382.40	647.21	-707.39	958.80	0.00	0.00	0.00
9,521.60	0.00	0.00	9,404.00	647.21	-707.39	958.80	0.00	0.00	0.00
BLACKHAWK									
9,600.00	0.00	0.00	9,482.40	647.21	-707.39	958.80	0.00	0.00	0.00
9,700.00	0.00	0.00	9,582.40	647.21	-707.39	958.80	0.00	0.00	0.00
9,800.00	0.00	0.00	9,682.40	647.21	-707.39	958.80	0.00	0.00	0.00
9,900.00	0.00	0.00	9,782.40	647.21	-707.39	958.80	0.00	0.00	0.00
10,000.00	0.00	0.00	9,882.40	647.21	-707.39	958.80	0.00	0.00	0.00
10,100.00	0.00	0.00	9,982.40	647.21	-707.39	958.80	0.00	0.00	0.00
10,121.60	0.00	0.00	10,004.00	647.21	-707.39	958.80	0.00	0.00	0.00
TD at 10121.60 - PBHL_NBU 1022-9E4CS									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SEGO_NBU 1022-9E4C - hit/miss target - Shape	0.00	0.00	8,866.00	647.21	-707.39	14,516,616.59	2,074,425.22	39.9637600	-109.4511440
PBHL_NBU 1022-9E4C - plan hits target center - Circle (radius 100.00)	0.00	0.00	10,004.00	647.21	-707.39	14,516,616.59	2,074,425.22	39.9637600	-109.4511440

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,422.72	2,364.00	8 5/8"	8.625	11.000	

Database:	Denver Sales	Local Co-ordinate Reference:	Well NBU 1022-9E4CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5152 & KB 4 @ 5156.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5152 & KB 4 @ 5156.00ft (ASSUMED)
Site:	NBU 1022-9K PAD	North Reference:	True
Well:	NBU 1022-9E4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,137.94	1,123.00	GREEN RIVER			
1,465.09	1,439.00	BIRDSNEST			
1,956.85	1,914.00	MAHOGANY			
4,397.27	4,280.00	WASATCH			
6,890.60	6,773.00	MESAVERDE			
8,983.60	8,866.00	SEGO			
9,070.60	8,953.00	CASTLEGATE			
9,521.60	9,404.00	BLACKHAWK			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.00	200.00	0.00	0.00	Start Build 2.00
950.00	941.46	65.89	-72.02	Start 2950.19 hold at 950.00 MD
3,900.19	3,791.13	581.32	-635.37	Start Drop -2.00
4,650.20	4,532.59	647.21	-707.39	Start 5471.41 hold at 4650.20 MD
10,121.60	10,004.00	647.21	-707.39	TD at 10121.60

NBU 1022-9E4BS/1022-9E4CS/1022-9F4CS/1022-9J3BS/
 1022-9K1BS/1022-9K3BS/1022-9L2AS/1022-9L2DS
 Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
 1 of 7

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-9K PAD

<u>API #</u>	<u>NBU 1022-9E4BS</u>		
	Surface:	2084 FSL / 1387 FWL	NESW
	BHL:	2258 FNL / 693 FWL	SWNW
			Lot
			Lot
<u>API #</u>	<u>NBU 1022-9E4CS</u>		
	Surface:	2080 FSL / 1378 FWL	NESW
	BHL:	2555 FNL / 672 FWL	NWSW
			Lot
			Lot
<u>API #</u>	<u>NBU 1022-9F4CS</u>		
	Surface:	2096 FSL / 1415 FWL	NESW
	BHL:	2533 FNL / 2033 FWL	NESW
			Lot
			Lot
<u>API #</u>	<u>NBU 1022-9J3BS</u>		
	Surface:	2092 FSL / 1406 FWL	NESW
	BHL:	1881 FSL / 2572 FEL	NWSE
			Lot
			Lot
<u>API #</u>	<u>NBU 1022-9K1BS</u>		
	Surface:	2100 FSL / 1424 FWL	NESW
	BHL:	2396 FSL / 1999 FWL	NWSE
			Lot
			Lot
<u>API #</u>	<u>NBU 1022-9K3BS</u>		
	Surface:	2088 FSL / 1397 FWL	NESW
	BHL:	1792 FSL / 1598 FWL	NESW
			Lot
			Lot
<u>API #</u>	<u>NBU 1022-9L2AS</u>		
	Surface:	2076 FSL / 1369 FWL	NESW
	BHL:	2347 FSL / 452 FWL	NWSW
			Lot
			Lot
<u>API #</u>	<u>NBU 1022-9L2DS</u>		
	Surface:	2072 FSL / 1360 FWL	NESW
	BHL:	2020 FSL / 412 FWL	SENW
			Lot
			Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

NBU 1022-9E4BS/1022-9E4CS/1022-9F4CS/1022-9J3BS/
1022-9K1BS/1022-9K3BS/1022-9L2AS/1022-9L2DS
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
2 of 7

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on July 7, 2015. Present were:

- Christine Cimiluca, Nick Day, Tyler Cox - BLM;
- Mitch Batty - Timberline Engineering & Land Surveying, Inc.;
- Joel Malefyt, Roger Parry, Chantill Recker, Lovel Young,
Doyle Holmes, Kelly Reyos - Kerr-McGee

A. Existing Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

Please refer to Topo B for existing roads.

B. New or Reconstructed Access Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

The following segments are "on-lease"

±310' (0.05 miles) – Section 9 T10S R22E (NW/4 SW/4) – On-lease UTU 01196B, from the edge of pad to the intersection in NW/4 SW/4. Please refer to Topo B.

C. Location of Existing Wells:

Please refer to Topo C for existing wells.

D. Location of Existing and/or Proposed Facilities:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

This pad will expand the existing pad for the NBU 1022-9K-2T, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on August 20, 2015. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

GAS GATHERING

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The total gas gathering pipeline distance from the meter to the tie in point is ±805' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

NBU 1022-9E4BS/1022-9E4CS/1022-9F4CS/1022-9J3BS/
1022-9K1BS/1022-9K3BS/1022-9L2AS/1022-9L2DS
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
3 of 7

±230' (0.04 miles) – Section 9 T10S R22E (NW/4 SW/4) – On-lease UTU 01196B, BLM surface, New 8" (max) buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

±575' (0.1 miles) – Section 9 T10S R22E (NW/4 SW/4) – On-lease UTU 01196B, BLM surface, New 8" (max) buried gas gathering pipeline from the edge of the pad to proposed 10" (max) gas pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

LIQUID GATHERING

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is ±805' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±230' (0.04 miles) – Section 9 T10S R22E (NW/4 SW/4) – On-lease UTU 01196B, BLM surface, New 6" (max) buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

±575' (0.1 miles) – Section 9 T10S R22E (NW/4 SW/4) – On-lease UTU 01196B, BLM surface, New 6" (max) buried liquid gathering pipeline from the edge of pad to proposed 6" (max) liquid pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

Pipeline Gathering Construction

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

The Anadarko Completions Transportation System (ACTS) information:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

Please refer to Exhibit C for ACTS Lines

E. Location and Types of Water Supply:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

Water will be hauled to location over the roads marked on Maps A and B.

F. Construction Materials:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

G. Methods for Handling Waste:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

NBU 1022-9E4BS/1022-9E4CS/1022-9F4CS/1022-9J3BS/
1022-9K1BS/1022-9K3BS/1022-9L2AS/1022-9L2DS
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
4 of 7

Materials Management

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

J. Plans for Surface Reclamation:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

Interim Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

Final Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

Measures Common to Interim and Final Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

Weed Control

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

Monitoring

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

K. Surface/Mineral Ownership:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

L. Other Information:

Cultural and Paleontological Resources

NBU 1022-9E4BS/1022-9E4CS/1022-9F4CS/1022-9J3BS/
1022-9K1BS/1022-9K3BS/1022-9L2AS/1022-9L2DS
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
5 of 7

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

Resource Reports:

A Class I literature survey was completed on July 15, 2015 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 15-063.

A paleontological reconnaissance survey was completed on July 23, 2015 by SWCA Environmental Consultants. For additional details please refer to report UT15-14314-21.

Biological field survey was completed on July 10, 2014 by SWCA Environmental Consultants. . For additional details please refer to report for the NBU 1022-9K pad expansion

Proposed Action Annual Emissions Tables:

Please refer to the Appendix in the Standard Operating Practices on file at the BLM Vernal Field Office dated May 13, 2014.

NBU 1022-9E4BS/1022-9E4CS/1022-9F4CS/1022-9J3BS/
1022-9K1BS/1022-9K3BS/1022-9L2AS/1022-9L2DS
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
6 of 7

M. Lessee's or Operators' Representative & Certification:

Joel Malefyt
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6828

Scott Rovira
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6243

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

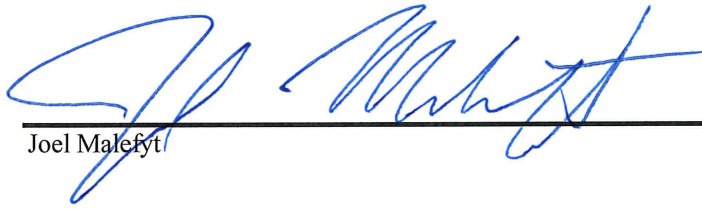
Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NBU 1022-9E4BS/1022-9E4CS/1022-9F4CS/1022-9J3BS/
1022-9K1BS/1022-9K3BS/1022-9L2AS/1022-9L2DS
Kerr-McGee Oil Gas Onshore, L.P.

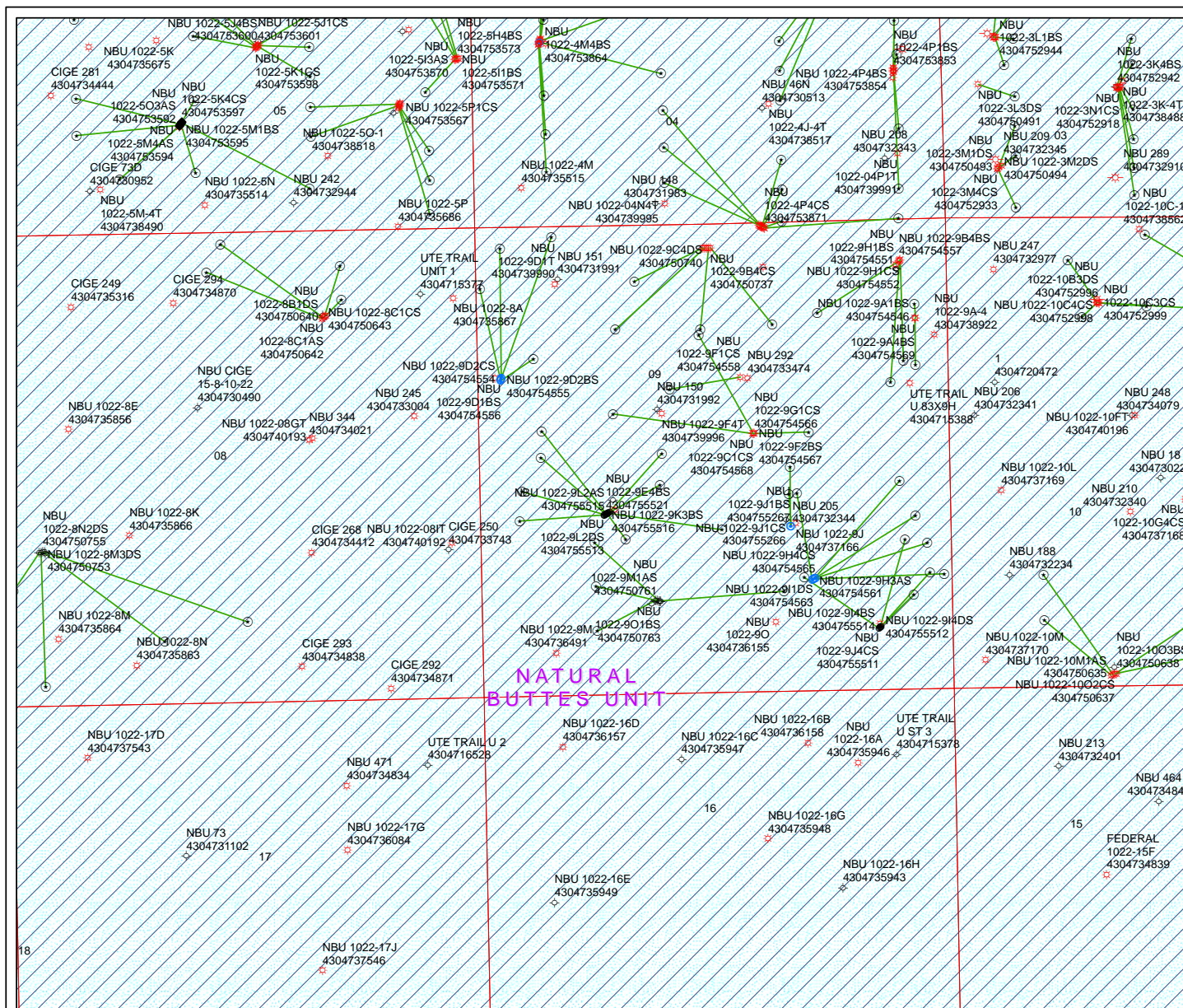
Surface Use Plan of Operations
7 of 7



Joel Malefyt

August 21, 2015

Date



API Number: 4304755520

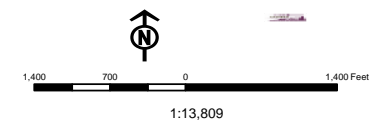
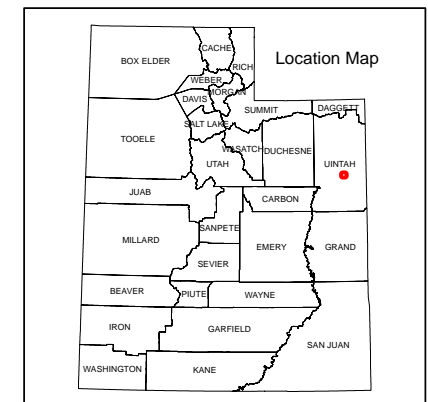
Well Name: NBU 1022-9E4CS

Township: T10.0S Range: R22.0E Section: 09 Meridian: S

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared: 12/24/2015
Map Produced by Diana Mason

Wells Query		Units	
Status		STATUS	
APD - Approved Permit		ACTIVE	
DRL - Spudded (Drilling Commenced)		EXPLORATORY	
GIW - Gas Injection		GAS STORAGE	
GS - Gas Storage		NF PP OIL	
LOC - New Location		NF SECONDARY	
OPS - Operation Suspended		PI OIL	
PA - Plugged Abandoned		PP GAS	
PGW - Producing Gas Well		PP GEOTHERMAL	
POW - Producing Oil Well		PP OIL	
SGW - Shut-in Gas Well		SECONDARY	
SWW - Shut-in Oil Well		TERMINATED	
TA - Temp. Abandoned			
TW - Test Well		Fields	
WOW - Water Disposal		STATUS	
WWW - Water Injection Well		Unknown	
WSW - Water Supply Well		ABANDONED	
		ACTIVE	
		COMBINED	
		INACTIVE	
		STORAGE	
		TERMINATED	



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
440 West 200 South, Suite 500
Salt Lake City, UT 84101

IN REPLY REFER TO:

3160

(UT-922)

January 12, 2016

Memorandum

To: Assistant Field Office Manager Minerals,
Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2016 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Mason, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2016 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
-------	-----------	----------

(Proposed PZ WASATCH-MESA VERDE)

PAD NBU 1022-9P

43-047-55510	NBU 1022-9P1BS	Sec 09 T10S R22E 0762 FSL 0809 FEL
	BHL	Sec 09 T10S R22E 1113 FSL 0434 FEL
43-047-55511	NBU 1022-9J4CS	Sec 09 T10S R22E 0742 FSL 0831 FEL
	BHL	Sec 09 T10S R22E 1330 FSL 1659 FEL
43-047-55512	NBU 1022-9I4DS	Sec 09 T10S R22E 0756 FSL 0816 FEL
	BHL	Sec 09 T10S R22E 1363 FSL 0248 FEL
43-047-55514	NBU 1022-9I4BS	Sec 09 T10S R22E 0749 FSL 0823 FEL
	BHL	Sec 09 T10S R22E 1740 FSL 0517 FEL

PAD NBU 1022-9K

43-047-55513	NBU 1022-9L2DS	Sec 09 T10S R22E 2072 FSL 1360 FWL
	BHL	Sec 09 T10S R22E 2020 FSL 0412 FWL
43-047-55515	NBU 1022-9L2AS	Sec 09 T10S R22E 2076 FSL 1369 FWL
	BHL	Sec 09 T10S R22E 2347 FSL 0452 FWL
43-047-55516	NBU 1022-9K3BS	Sec 09 T10S R22E 2088 FSL 1397 FWL
	BHL	Sec 09 T10S R22E 1792 FSL 1598 FWL
43-047-55517	NBU 1022-9K1BS	Sec 09 T10S R22E 2100 FSL 1424 FWL
	BHL	Sec 09 T10S R22E 2396 FSL 1999 FWL
43-047-55518	NBU 1022-9J3BS	Sec 09 T10S R22E 2092 FSL 1406 FWL
	BHL	Sec 09 T10S R22E 1881 FSL 2572 FEL

RECEIVED: January 12, 2016

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
PAD NBU 1022-99K		
43-047-55519	NBU 1022-9F4CS	Sec 09 T10S R22E 2096 FSL 1415 FWL
	BHL	Sec 09 T10S R22E 2533 FNL 2033 FWL
43-047-55520	NBU 1022-9E4CS	Sec 09 T10S R22E 2080 FSL 1378 FWL
	BHL	Sec 09 T10S R22E 2555 FNL 0672 FWL
43-047-55521	NBU 1022-9E4BS	Sec 09 T10S R22E 2084 FSL 1387 FWL
	BHL	Sec 09 T10S R22E 2258 FNL 0693 FWL

This office has no objection to permitting the wells at this time.

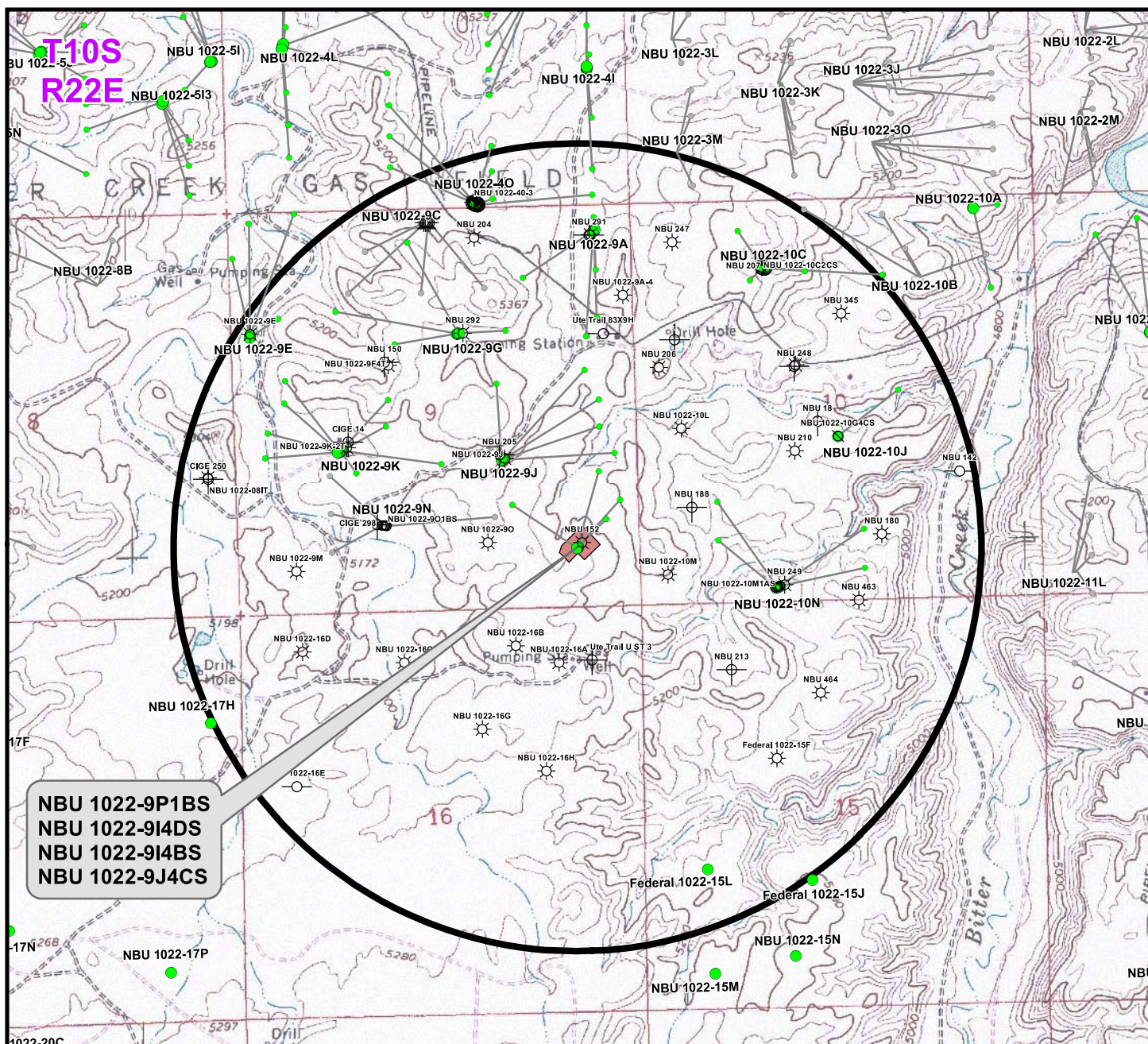
Michael
Coulthard

Digitally signed by Michael Coulthard
DN: cn=Michael Coulthard, o=Bureau of
Land Management, ou=Division of
Minerals, email=mcoultha@blm.gov, c=US
Date: 2016.01.12 14:00:03 -07'00'

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
UT920 - Reading File
Agr. Sec. Chron

MCoulthard:mc:1-12-16

RECEIVED: January 12, 2016



Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 1022-9P1BS	NBU 152	±437ft
NBU 1022-9I4DS	NBU 152	±746ft
NBU 1022-9I4BS	NBU 152	±955ft
NBU 1022-9J4CS	NBU 1022-901BS BH	±278ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- ☀ Producing
- ☺ Spudded
- APD Approved
- ⊗ Preliminary Location
- ⊕ Deferred
- ✕ Cancelled
- ⊖ Temporarily Abandoned
- ☀ Active Injector
- ⊖ Location Abandoned
- ⊖ Shut-In
- ⊖ Plugged & Abandoned

WELL PAD - NBU 1022-9P

TOPO C
NBU 1022-9P1BS, NBU 1022-9I4DS,
NBU 1022-9I4BS & NBU 1022-9J4CS
LOCATED IN SECTION 9, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

**Kerr-McGee Oil &
 Gas Onshore L.P.**

**1099 18th Street
 Denver, Colorado 80202**



CONSULTING, LLC
 1095 Saberton Avenue
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182

SCALE: 1" = 2,000ft

DRAWN: TL

REVISED:

NAD83 USP Central

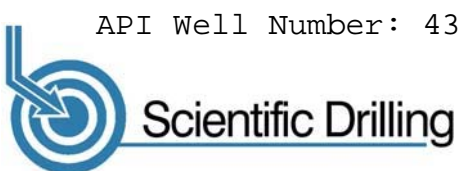
DATE: 13 July 2015

DATE:

SHEET NO:

12

12 OF 16



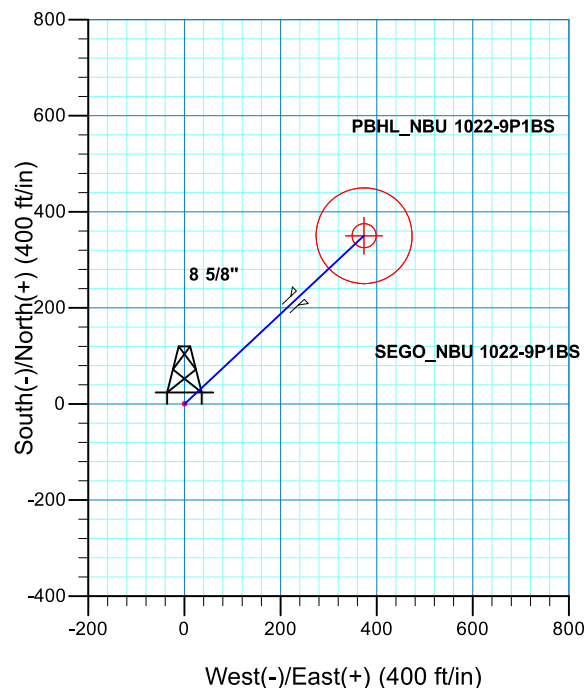
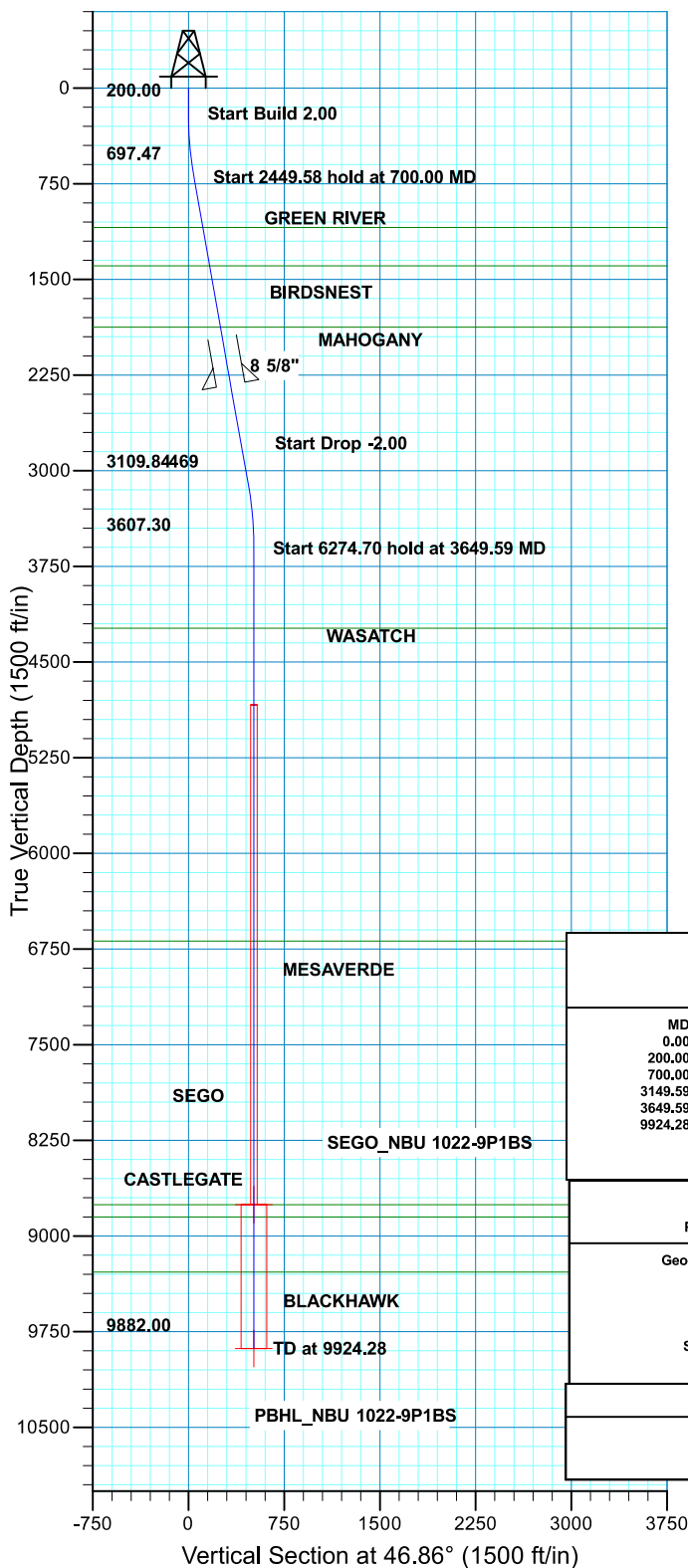
WELL DETAILS: NBU 1022-9P1BS

GL 5236 @ 5240.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14514724.96	2078268.34	39.9583830	-109.4375520

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8755.00	350.37	373.90	14515081.83	2078636.05	39.9593450	-109.4362180	Circle (Radius: 25.00)
PBHL	9882.00	350.37	373.90	14515081.83	2078636.05	39.9593450	-109.4362180	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00
700.00	10.00	46.86	697.47	29.76	31.76	2.00	46.86
3149.59	10.00	46.86	3109.84	320.61	342.14	0.00	0.00
3649.59	0.00	0.00	3607.30	350.37	373.90	2.00	180.00
9924.28	0.00	0.00	9882.00	350.37	373.90	0.00	0.00

Start 2449.58 hold at 700.00 MD

PBHL_NBU 1022-9P1BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

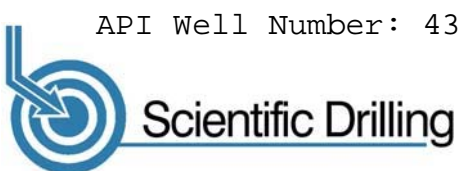
Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1092.00	1100.62	GREEN RIVER
1394.00	1407.28	BIRDSNEST
1876.00	1896.72	MAHOGANY
4235.00	4277.28	WASATCH
6688.00	6730.28	MESAVERDE
8755.00	8797.28	SEGO
8851.00	8893.28	CASTLEGATE
9282.00	9324.28	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2326.00	2353.66	8 5/8"	8.625



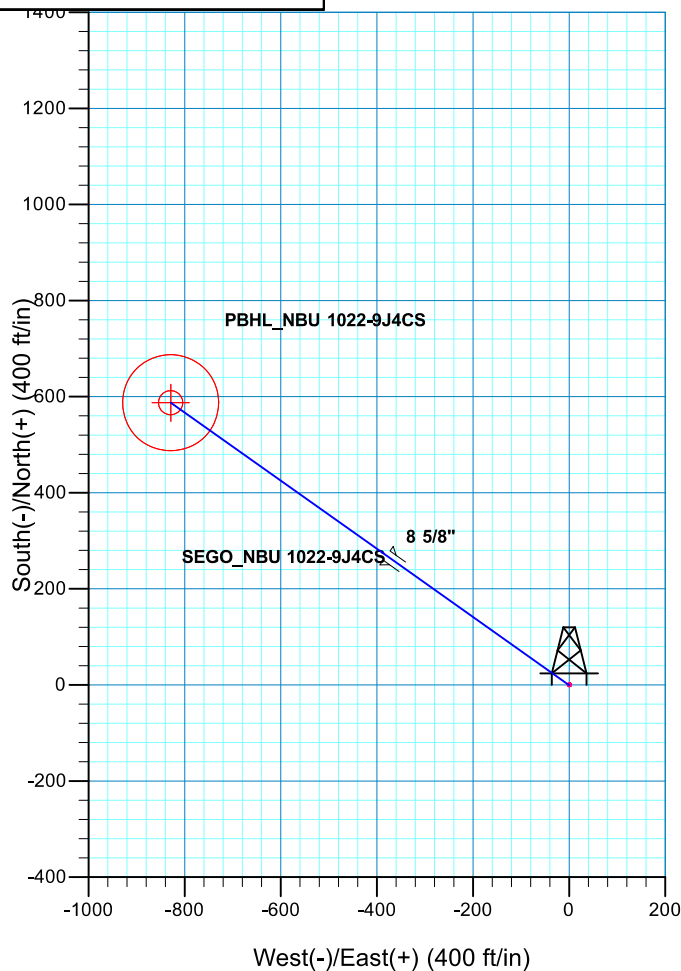
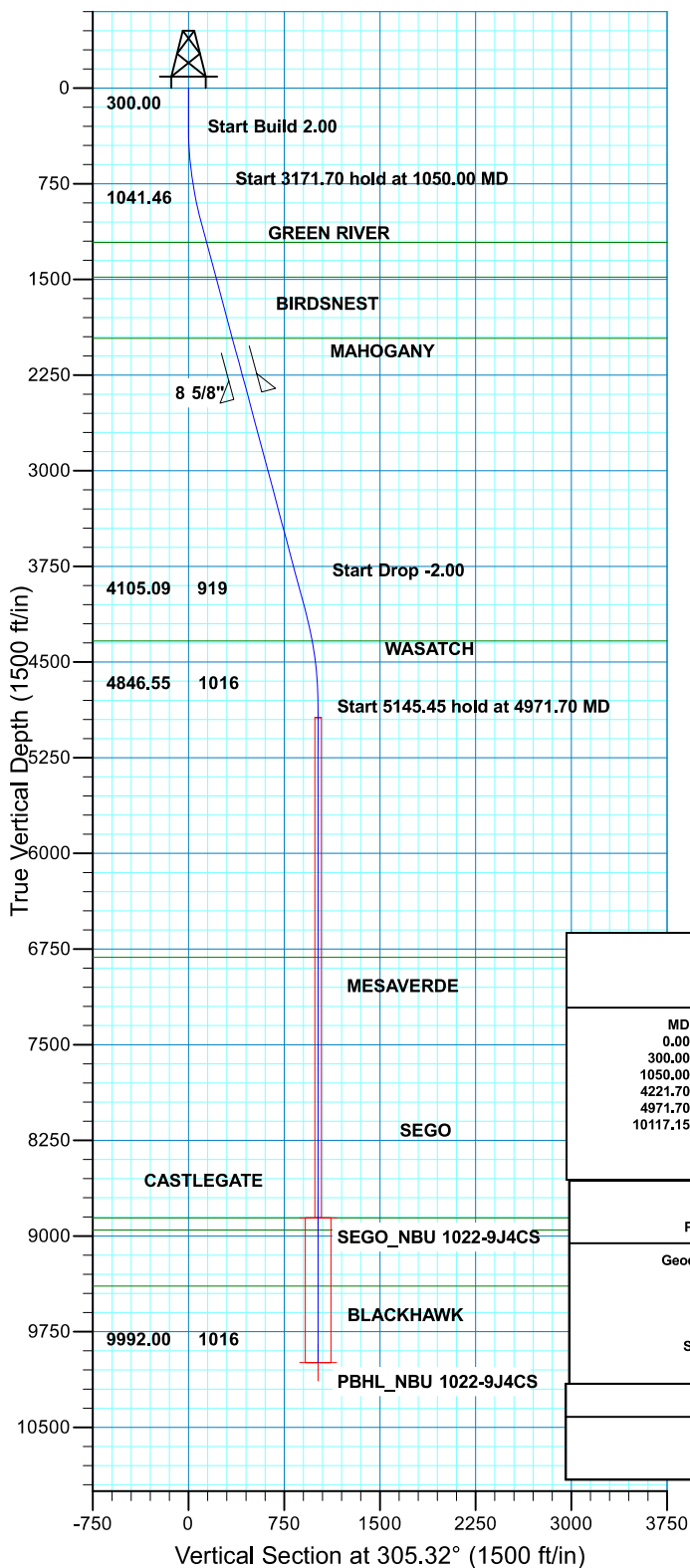
WELL DETAILS: NBU 1022-9J4CS

GL 5236 & KB 4 @ 5240.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14514703.82	2078246.85	39.9583260	-109.4376300

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8858.00	587.49	-829.08	14515276.69	2077407.61	39.9599390	-109.4405880	Circle (Radius: 25.00)
PBHL	9992.00	587.49	-829.08	14515276.69	2077407.61	39.9599390	-109.4405880	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00
1050.00	15.00	305.32	1041.46	56.44	-79.65	2.00	305.32 97.62
4221.70	15.00	305.32	4105.09	531.05	-749.43	0.00	0.00 918.51
4971.70	0.00	0.00	4846.55	587.49	-829.08	2.00	180.00 1016.13
10117.15	0.00	0.00	9992.00	587.49	-829.08	0.00	0.00 1016.13

PBHL_NBU 1022-9J4CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

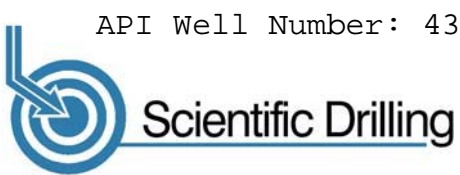
Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1209.00	1223.45	GREEN RIVER
1483.00	1507.11	BIRDSNEST
1963.00	2004.05	MAHOGANY
4336.00	4458.41	WASATCH
6815.00	6940.15	MESAVERDE
8858.00	8983.15	SEGO
8953.00	9078.15	CASTLEGATE
9392.00	9517.15	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2413.00	2469.92	8 5/8"	8.625



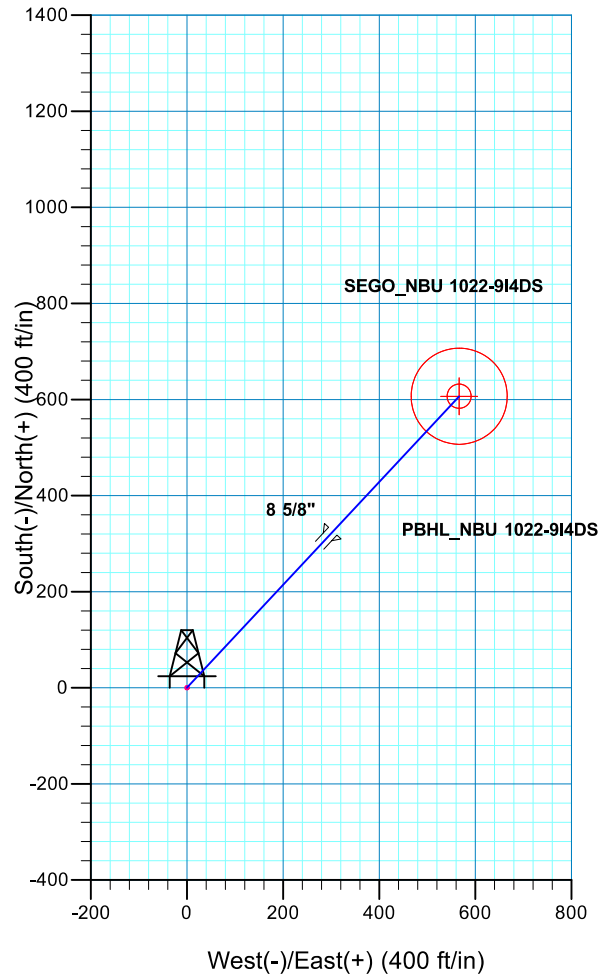
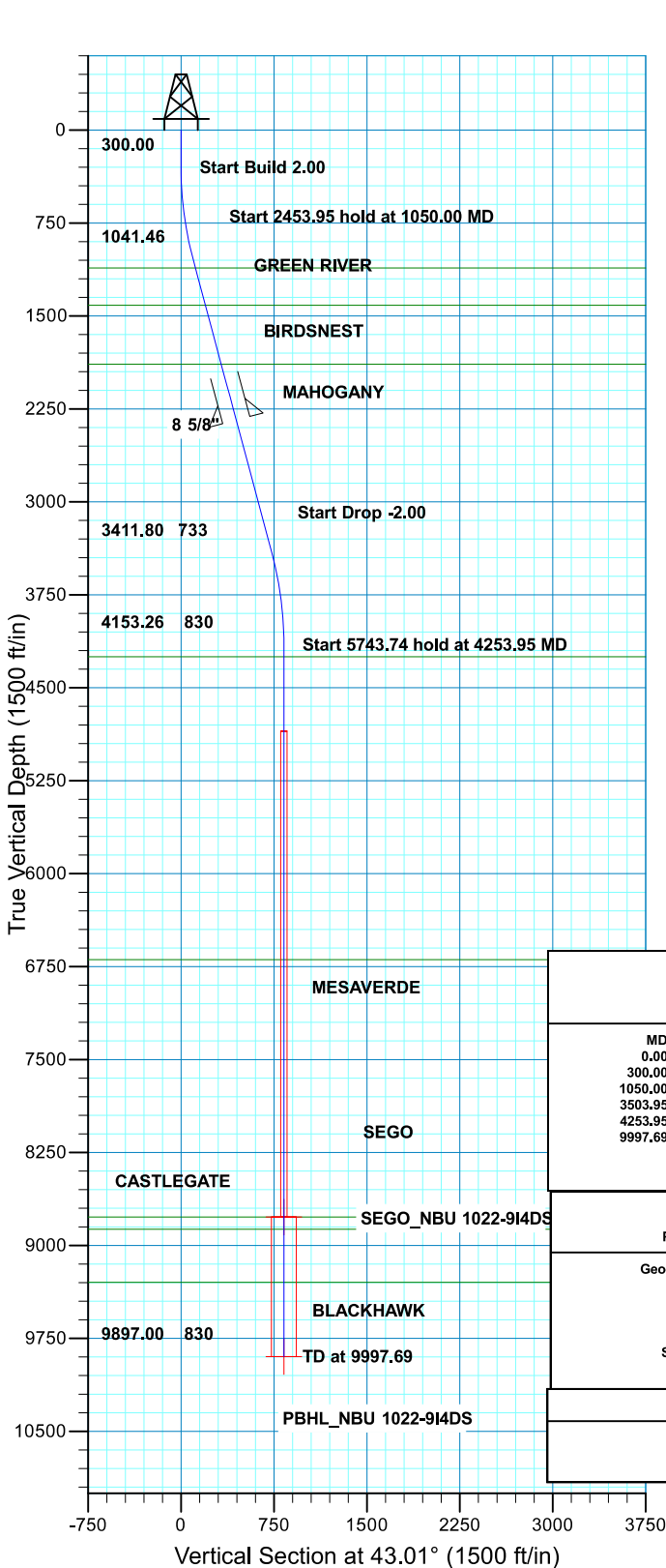
WELL DETAILS: NBU 1022-9I4DS

GL 5236 & KB 4 @ 5240.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14514717.91	2078261.18	39.9583640	-109.4375780

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8771.00	607.15	566.45	14515334.89	2078816.91	39.9600310	-109.4355570	Circle (Radius: 25.00)
PBHL	9897.00	607.15	566.45	14515334.89	2078816.91	39.9600310	-109.4355570	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00
1050.00	15.00	43.01	1041.46	71.38	66.59	2.00	43.01
3503.95	15.00	43.01	3411.80	535.77	499.86	0.00	0.00
4253.95	0.00	0.00	4153.26	607.15	566.45	2.00	180.00
9997.69	0.00	0.00	9897.00	607.15	566.45	0.00	0.00

PBHL_NBU 1022-9I4DS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

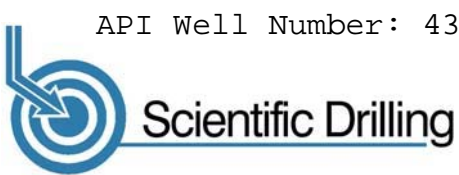
Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1112.00	1123.03	GREEN RIVER
1414.00	1435.68	BIRDSNEST
1890.00	1928.47	MAHOGANY
4250.00	4350.69	WASATCH
6694.00	6794.69	MESAVERDE
8771.00	8871.69	SEGO
8868.00	8968.69	CASTLEGATE
9297.00	9397.69	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2340.00	2394.35	8 5/8"	8.625



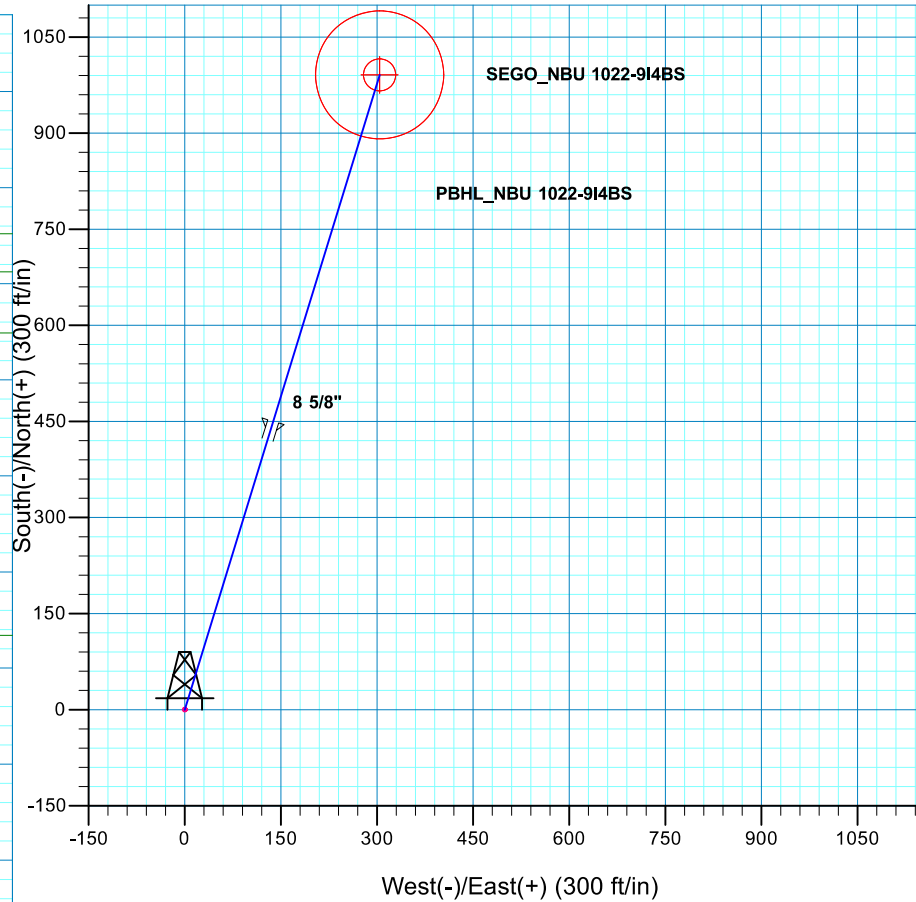
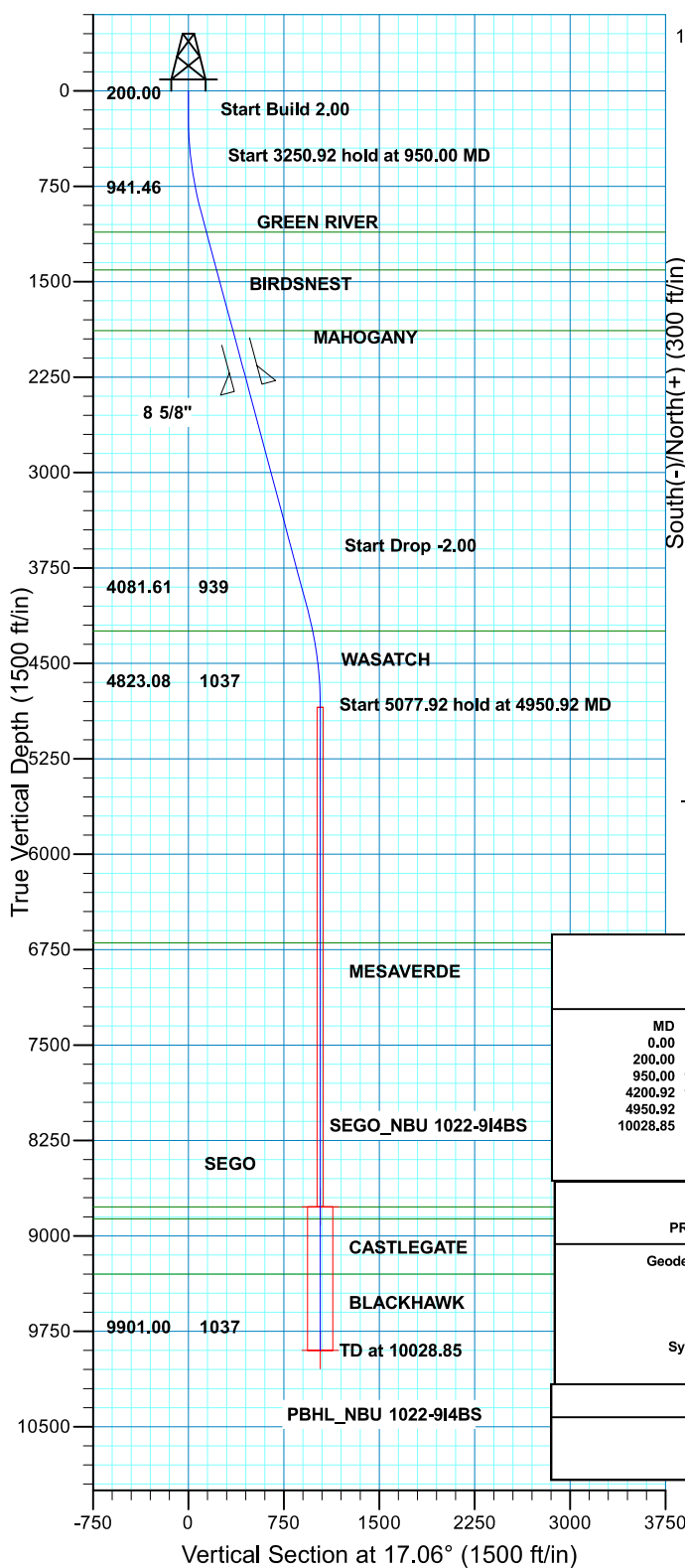
WELL DETAILS: NBU 1022-9I4BS

GL 5236 & KB 4 @ 5240.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14514710.86	2078254.01	39.9583450	-109.4376040

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8773.00	991.02	304.10	14515707.06	2078540.71	39.9610660	-109.4365190	Circle (Radius: 25.00)
PBHL	9901.00	991.02	304.10	14515707.06	2078540.71	39.9610660	-109.4365190	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00
950.00	15.00	17.06	941.46	93.32	28.64	2.00	17.06	97.62
4200.92	15.00	17.06	4081.61	897.70	275.47	0.00	0.00	939.02
4950.92	0.00	0.00	4823.08	991.02	304.10	2.00	180.00	1036.63
10028.85	0.00	0.00	9901.00	991.02	304.10	0.00	0.00	1036.63

PBHL_NBU 1022-9I4BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1110.00	1124.48	GREEN RIVER
1407.00	1431.96	BIRDSNEST
1884.00	1925.79	MAHOGANY
4246.00	4369.87	WASATCH
6697.00	6824.85	MESAVERDE
8773.00	8900.85	SEGO
8865.00	8992.85	CASTLEGATE
9301.00	9428.85	BLACKHAWK

0.00

0.00

0.00

CASING DETAILS

TVD	MD	Name	Size
2334.00	2391.66	8 5/8"	8.625

Plan: PLAN #1 PRELIMINARY (NBU 1022-9I4BS/OH)

Received: December 21, 2015
 Received: December 21, 2015



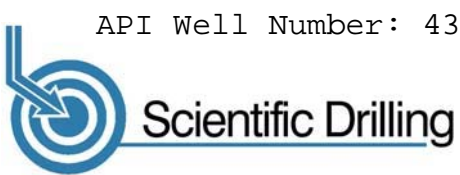
Proposed Well	Nearest Well Bore	Footage
NBU 1022-9K1BS	CIGE 14	±532ft
NBU 1022-9F4CS	NBU 1022-9F4T	±448ft
NBU 1022-9J3BS	NBU 205	±771ft
NBU 1022-9K3BS	NBU 1022-9L4AS BH	±349ft
NBU 1022-9E4BS	NBU 1022-9E	±758ft
NBU 1022-9E4CS	CIGE 14	±984ft
NBU 1022-9L2AS	NBU 1022-08IT	±981ft
NBU 1022-9L2DS	CIGE 250	±796ft

 Well - Proposed
 Well Path
  Producing
  Deferred
  Active Injector
  Plugged & Abandoned
 Bottom Hole - Proposed
 Well Pad
 Spudded
 Cancelled
 Location Abandoned
 Shut-In
 Bottom Hole - Existing
 Well - 1 Mile Radius
 APD Approved
 Temporarily Abandoned
 Preliminary Location

TOPO C
NBU 1022-9K1BS, NBU 1022-9F4CS,
NBU 1022-9J3BS, NBU 1022-9K3BS,
NBU 1022-9E4BS, NBU 1022-9E4CS,
NBU 1022-9L2AS & NBU 1022-9L2DS
LOCATED IN SECTION 9, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH

1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

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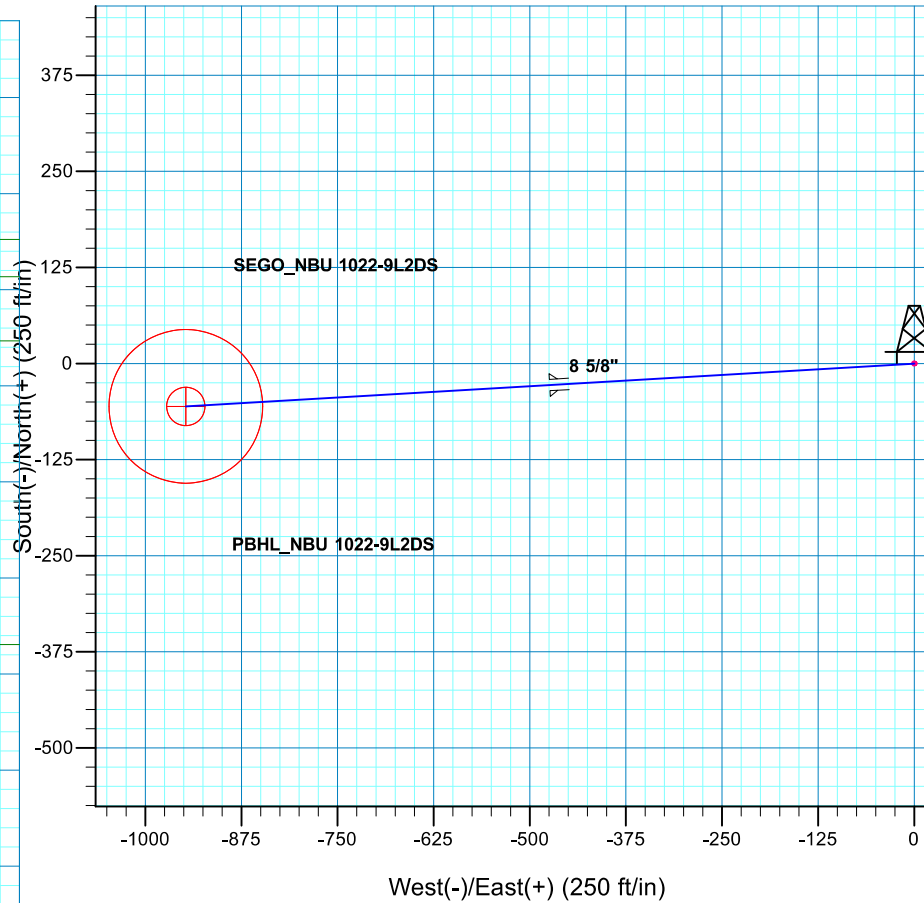
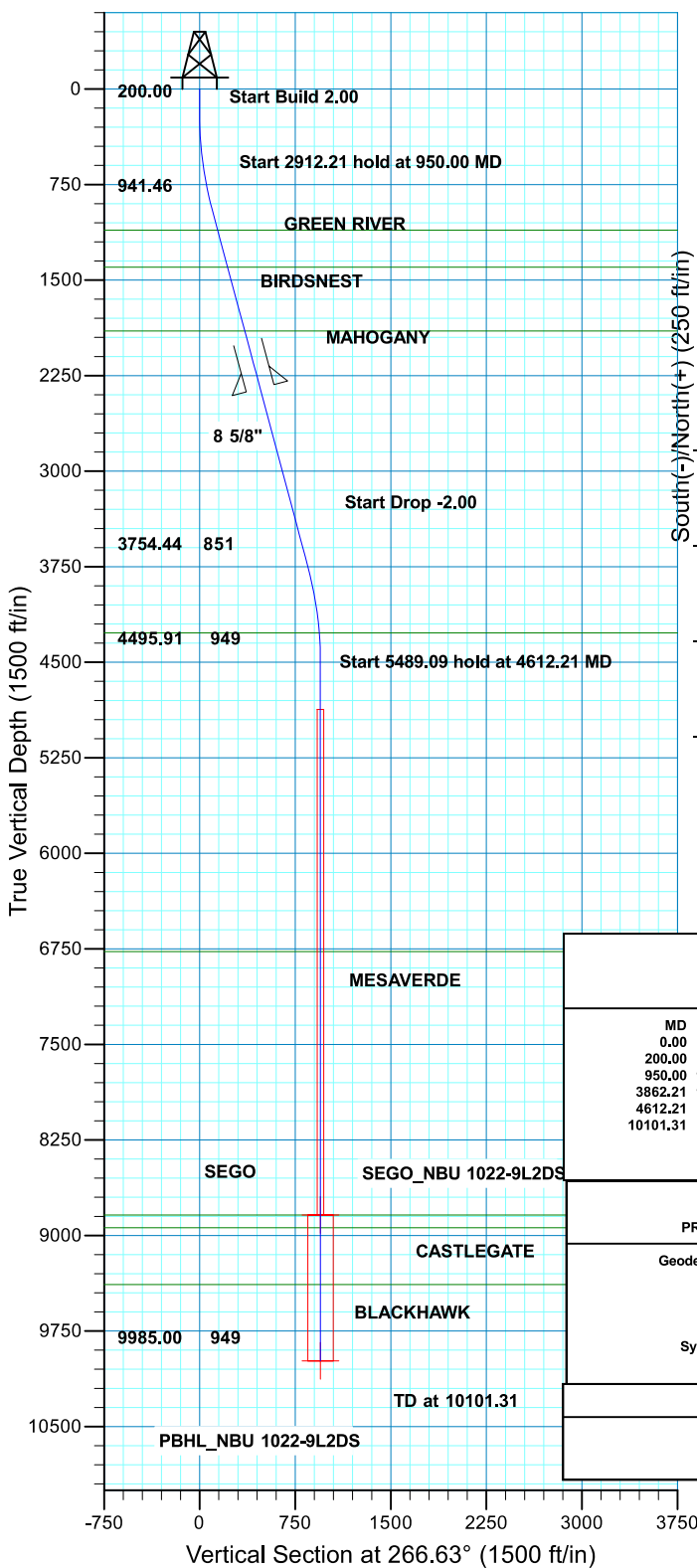
WELL DETAILS: NBU 1022-9L2DS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14515973.44	2075125.70	39.9618080	-109.4486850

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8838.00	-55.71	-947.33	14515901.27	2074179.48	39.9618080	-109.4520650	Circle (Radius: 25.00)
PBHL	9985.00	-55.71	-947.33	14515901.27	2074179.48	39.9618080	-109.4520650	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00
950.00	15.00	266.63	941.46	-5.73	-97.45	2.00	266.63	97.62
3862.21	15.00	266.63	3754.44	-49.98	-849.88	0.00	0.00	851.35
4612.21	0.00	0.00	4495.91	-55.71	-947.33	2.00	180.00	948.97
10101.31	0.00	0.00	9985.00	-55.71	-947.33	0.00	0.00	948.97

PBHL_NBU 1022-9L2DS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

FORMATION TOP DETAILS

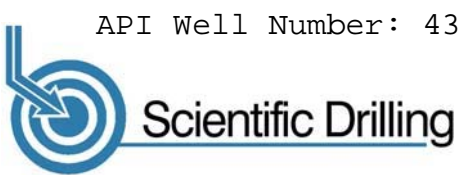
TVDPath	MDPath	Formation
1108.00	1122.41	GREEN RIVER
1398.00	1422.64	BIRDSNEST
1899.00	1941.32	MAHOGANY
4269.00	4385.07	WASATCH
6771.00	6887.31	MESAVERDE
8838.00	8954.31	SEGO
8939.00	9055.31	CASTLEGATE
9385.00	9501.31	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2349.00	2407.19	8 5/8"	8.625

Plan: PLAN #1 PRELIMINARY (NBU 1022-9L2DS/OH)

Received: December 21, 2015



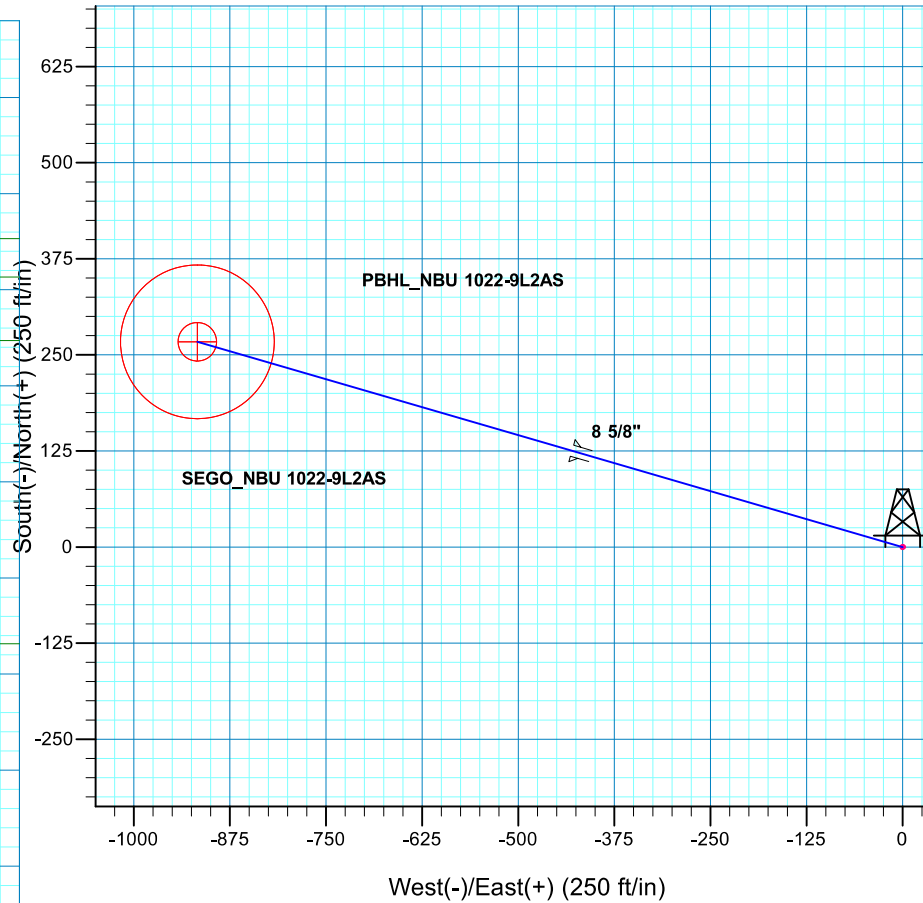
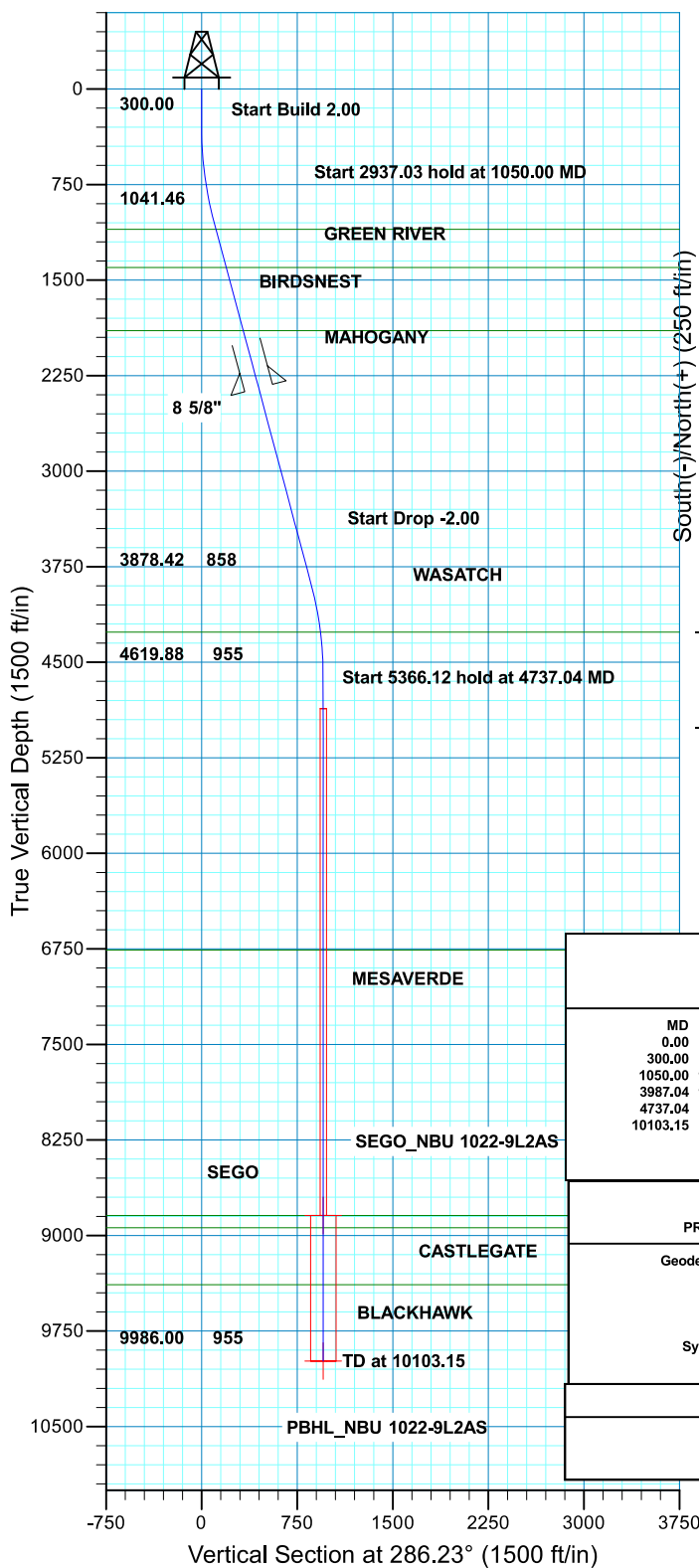
WELL DETAILS: NBU 1022-9L2AS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14515977.61	2075134.87	39.9619720	-109.4486520

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8843.00	266.98	-917.33	14516228.60	2074213.04	39.9627050	-109.4519250	Circle (Radius: 25.00)
PBHL	9986.00	266.98	-917.33	14516228.60	2074213.04	39.9627050	-109.4519250	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00
1050.00	15.00	286.23	1041.46	27.28	-93.73	2.00	286.23
3987.04	15.00	286.23	3878.42	239.71	-823.60	0.00	0.00
4737.04	0.00	0.00	4619.88	266.98	-917.33	2.00	180.00
10103.15	0.00	0.00	9986.00	266.98	-917.33	0.00	0.00

PBHL_NBU 1022-9L2AS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

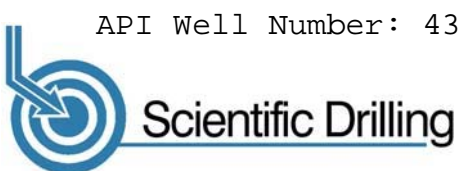
Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1102.00	1112.67	GREEN RIVER
1402.00	1423.26	BIRDSNEST
1898.00	1936.75	MAHOGANY
4263.00	4379.22	WASATCH
6759.00	6876.15	MESAVERDE
8843.00	8960.15	SEGO
8939.00	9056.15	CASTLEGATE
9386.00	9503.15	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2348.00	2402.63	8 5/8"	8.625



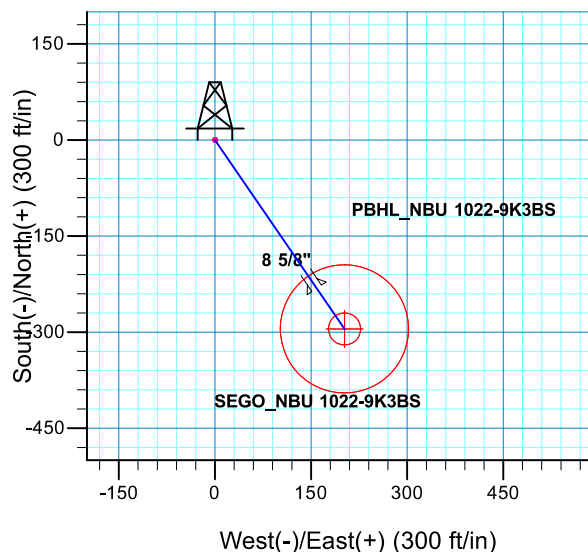
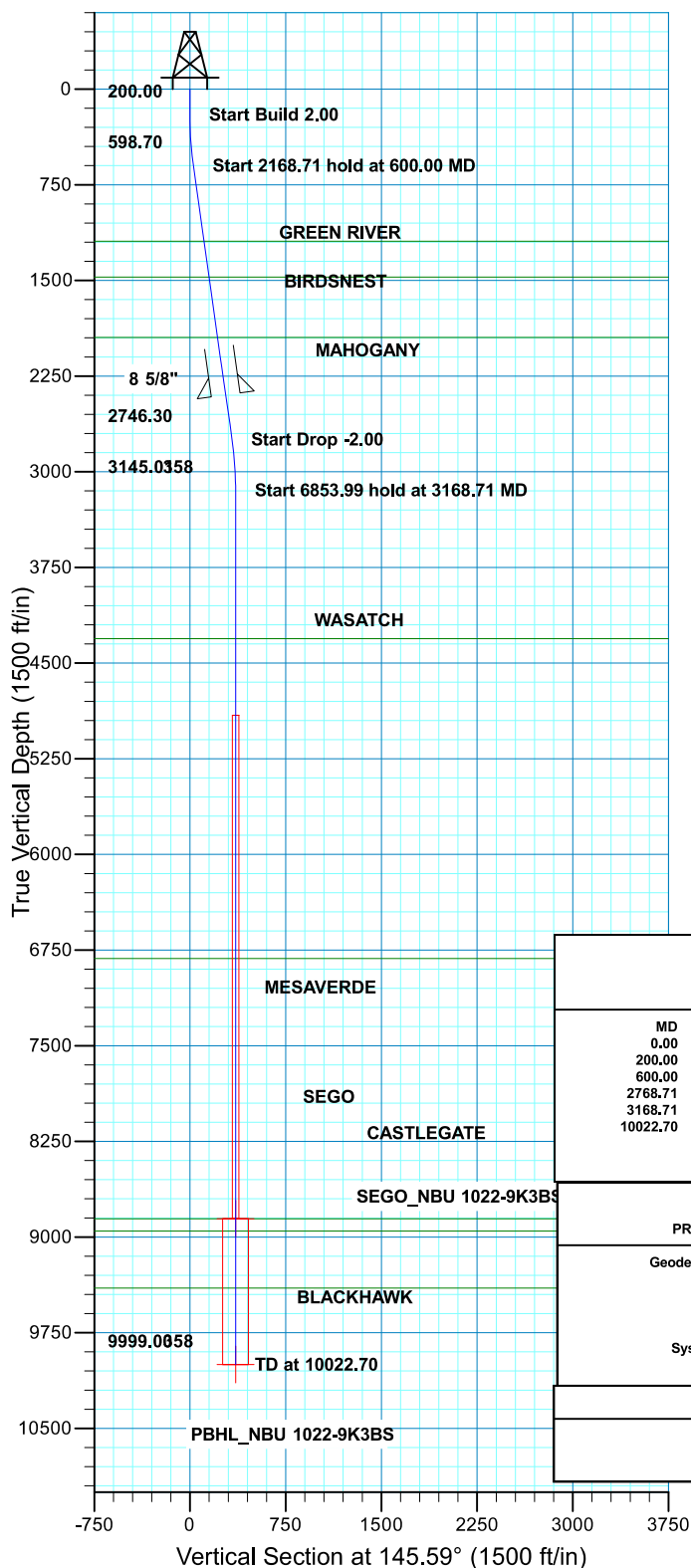
WELL DETAILS: NBU 1022-9K3BS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14515990.10	2075162.13	39.9620050	-109.4485540

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8857.00	-295.01	202.08	14515698.65	2075369.31	39.9611950	-109.4478330	Circle (Radius: 25.00)
PBHL	9999.00	-295.01	202.08	14515698.65	2075369.31	39.9611950	-109.4478330	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00
600.00	8.00	145.59	598.70	-23.00	15.76	2.00	145.59
2768.71	8.00	145.59	2746.30	-272.01	186.32	0.00	0.00
3168.71	0.00	0.00	3145.01	-295.01	202.08	2.00	180.00
10022.70	0.00	0.00	9999.00	-295.01	202.08	0.00	0.00

PBHL_NBU 1022-9K3BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

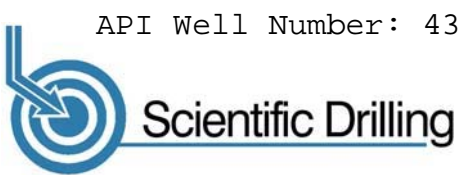
Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1193.00	1200.14	GREEN RIVER
1473.00	1482.89	BIRDSNEST
1948.00	1962.56	MAHOGANY
4308.00	4331.70	WASATCH
6817.00	6840.70	MESAVERDE
8857.00	8880.70	SEGO
8952.00	8975.70	CASTLEGATE
9399.00	9422.70	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2398.00	2416.98	8 5/8"	8.625



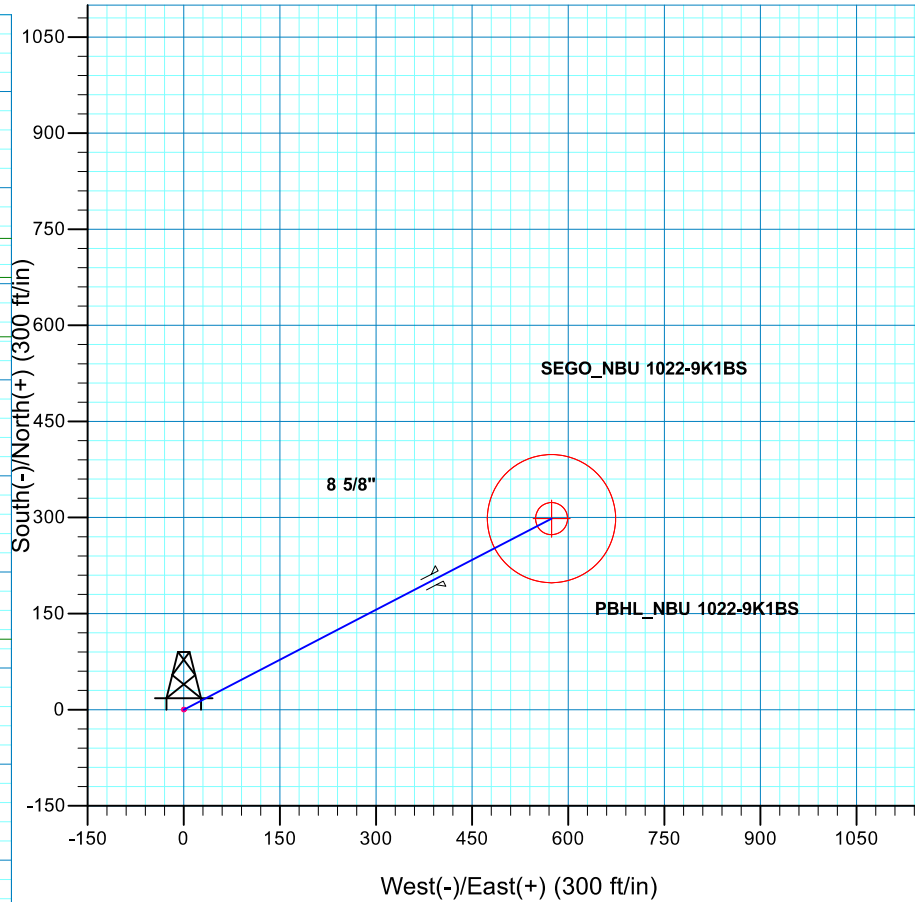
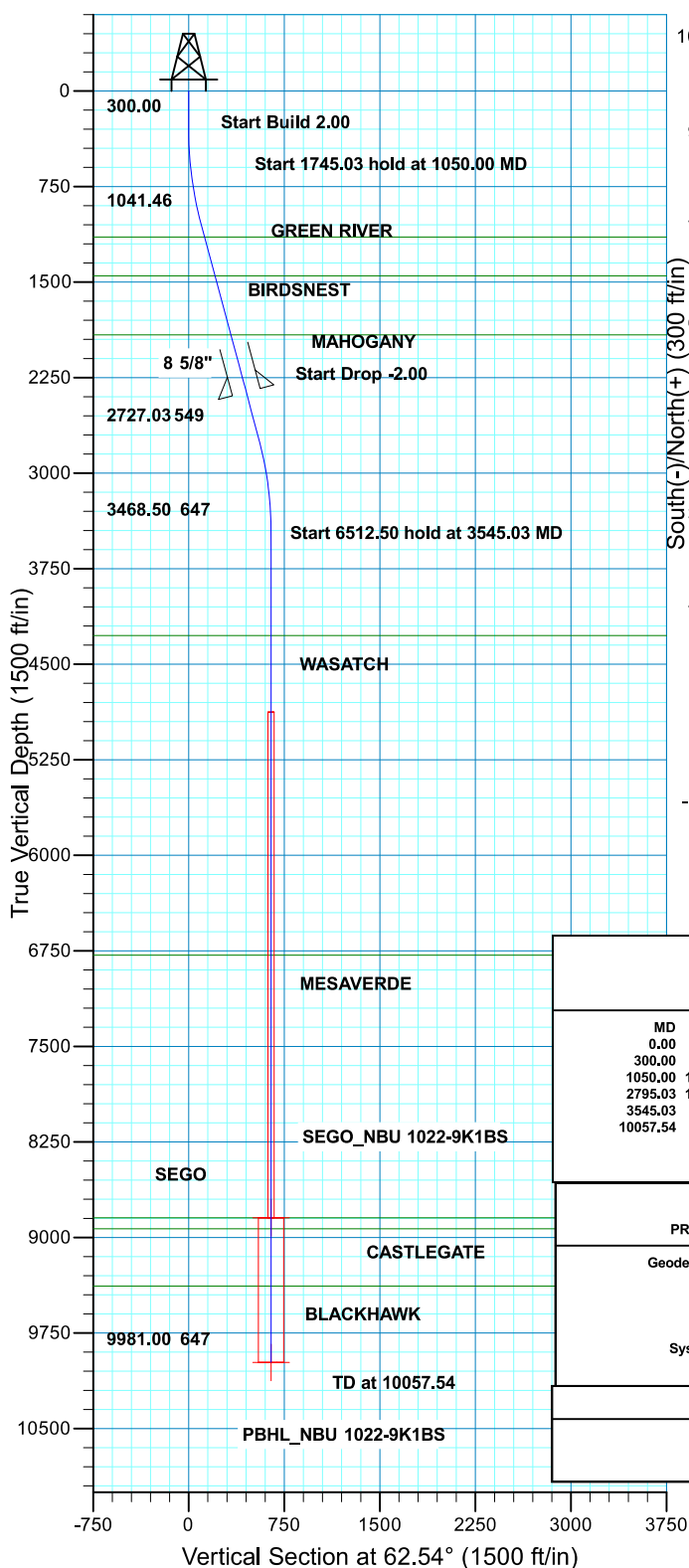
WELL DETAILS: NBU 1022-9K1BS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14516002.60	2075189.38	39.9620380	-109.4484560

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8845.00	298.30	574.00	14516310.83	2075758.10	39.9628570	-109.4464080	Circle (Radius: 25.00)
PBHL	9981.00	298.30	574.00	14516310.83	2075758.10	39.9628570	-109.4464080	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00
1050.00	15.00	62.54	1041.46	45.01	86.62	2.00	62.54	97.62
2795.03	15.00	62.54	2727.03	253.28	487.38	0.00	0.00	549.26
3545.03	0.00	0.00	3468.50	298.30	574.00	2.00	180.00	646.88
10057.54	0.00	0.00	9981.00	298.30	574.00	0.00	0.00	646.88

FORMATION TOP DETAILS

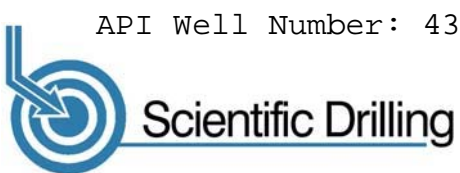
PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

TVDPath	MDPath	Formation
1146.00	1158.23	GREEN RIVER
1451.00	1473.98	BIRDSNEST
1915.00	1954.35	MAHOGANY
4276.00	4352.54	WASATCH
6783.00	6859.54	MESAVERDE
8845.00	8921.54	SEGO
8931.00	9007.54	CASTLEGATE
9381.00	9457.54	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2365.00	2420.23	8 5/8"	8.625



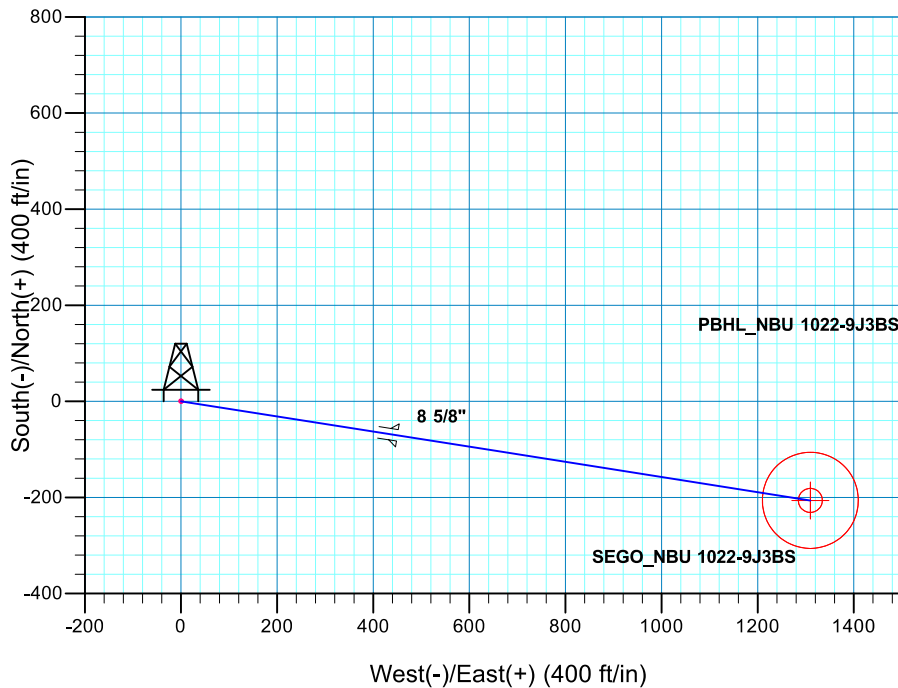
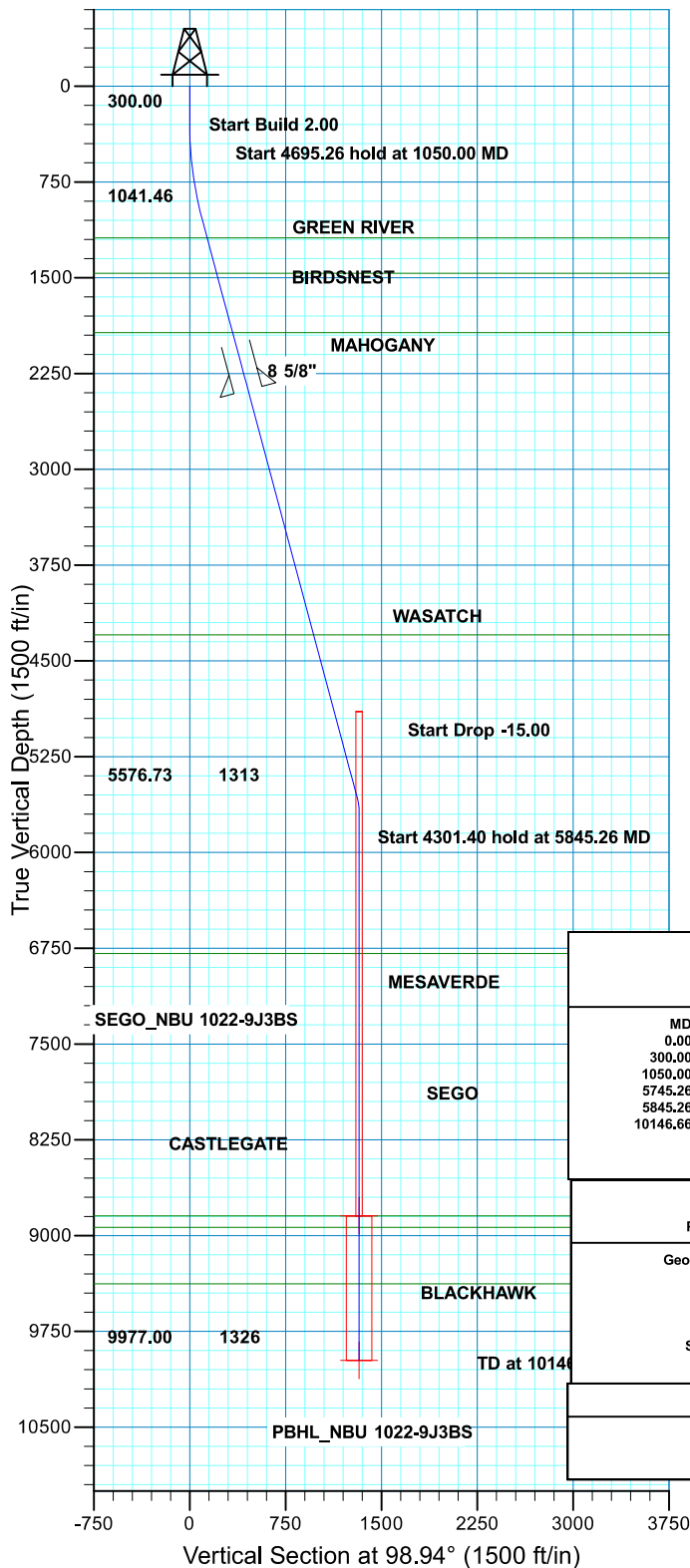
WELL DETAILS: NBU 1022-9J3BS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14515994.27	2075171.31	39.9614500	-109.4485210

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8845.00	-206.11	1309.73	14515810.97	2076484.42	39.9614500	-109.4438480	Circle (Radius: 25.00)
PBHL	9977.00	-206.11	1309.73	14515810.97	2076484.42	39.9614500	-109.4438480	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00
1050.00	15.00	98.94	1041.46	-15.17	96.43	2.00	98.94	97.62
5745.26	15.00	98.94	5576.73	-204.09	1296.88	0.00	0.00	1312.84
5845.26	0.00	0.00	5675.60	-206.11	1309.73	15.00	180.00	1325.85
10146.66	0.00	0.00	9977.00	-206.11	1309.73	0.00	0.00	1325.85

PBHL_NBU 1022-9J3BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

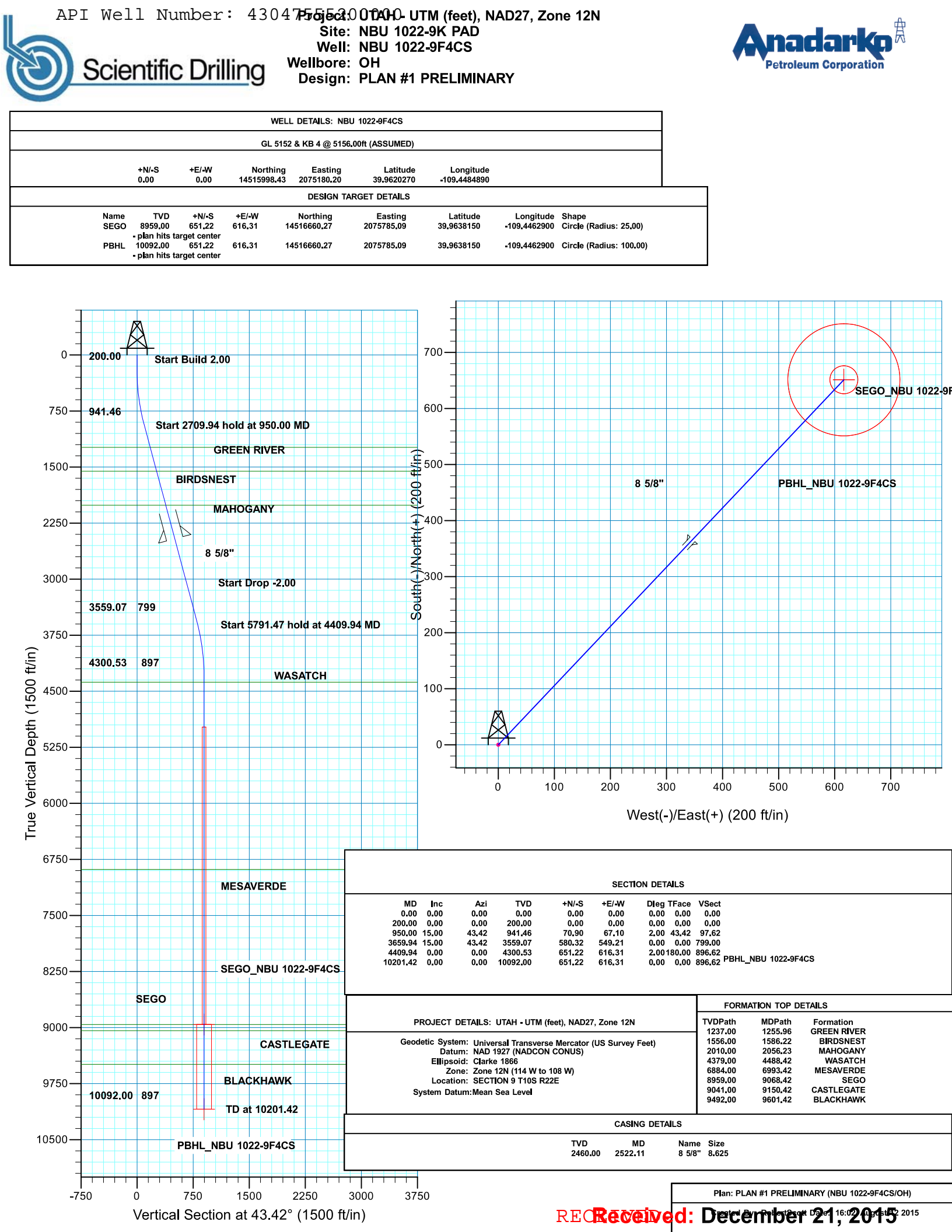
Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

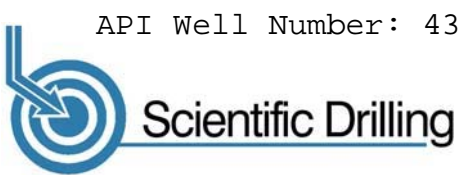
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1187.00	1200.67	GREEN RIVER
1464.00	1487.44	BIRDSNEST
1929.00	1968.85	MAHOGANY
4296.00	4419.35	WASATCH
6791.00	6960.66	MESAVERDE
8845.00	9014.66	SEGO
8934.00	9103.66	CASTLEGATE
9377.00	9546.66	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2379.00	2434.72	8 5/8"	8.625





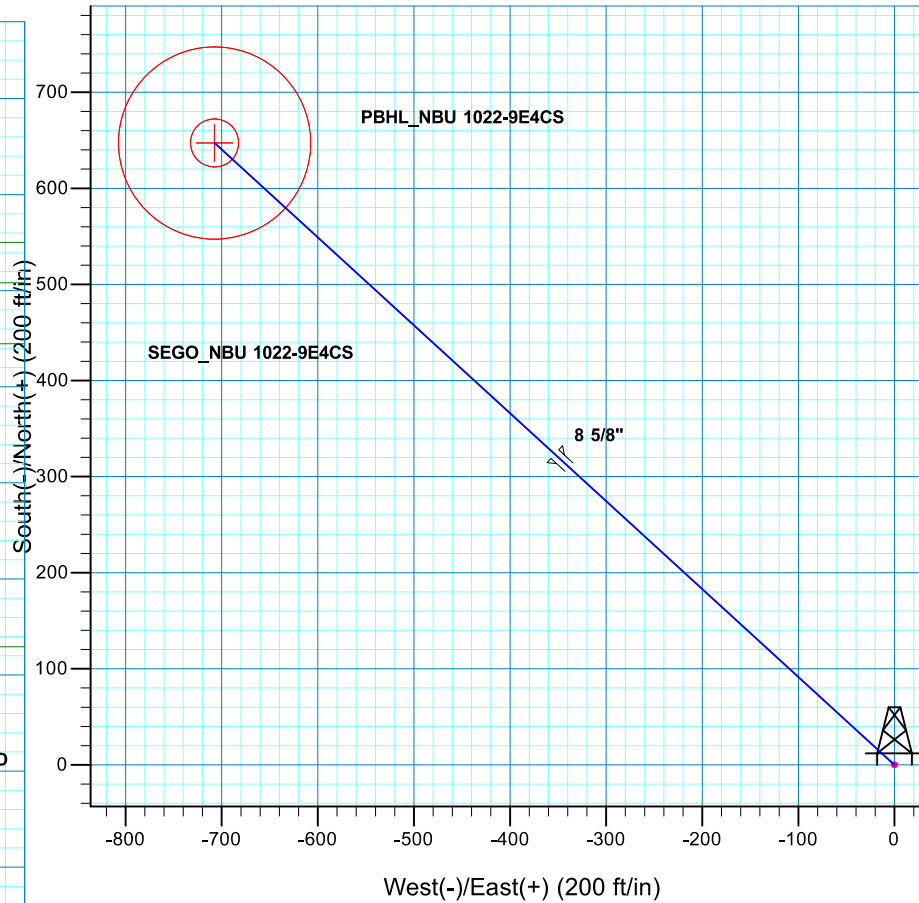
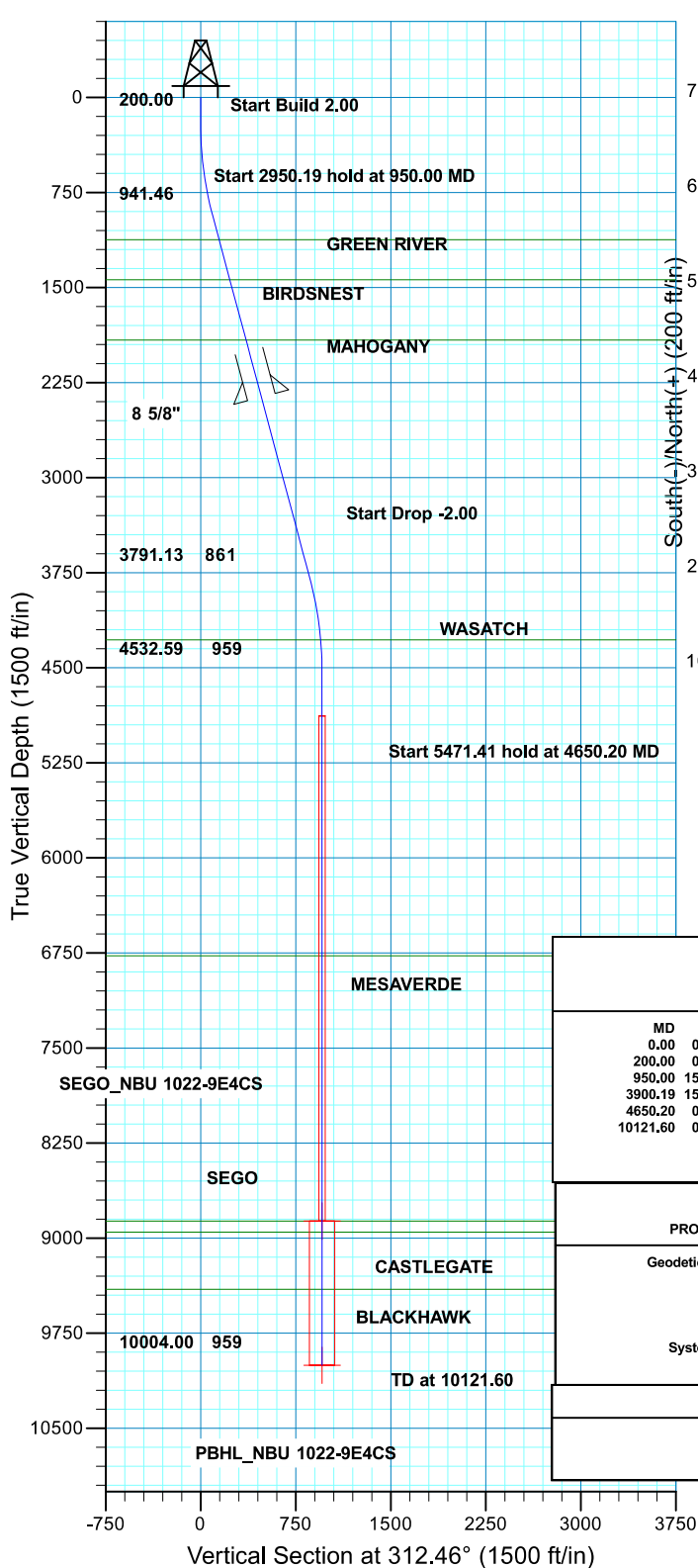
WELL DETAILS: NBU 1022-9E4CS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14515981.77	2075143.77	39.9637600	-109.4486200

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8866.00	647.21	-707.39	14516616.58	2074425.23	39.9637600	-109.4511440	Circle (Radius: 25.00)
PBHL	10004.00	647.21	-707.39	14516616.58	2074425.23	39.9637600	-109.4511440	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00
950.00	15.00	312.46	941.46	65.89	-72.02	2.00	312.46
3900.19	15.00	312.46	3791.13	581.32	-635.37	0.00	0.00
4650.20	0.00	0.00	4532.59	647.21	-707.39	2.00	180.00
10121.60	0.00	0.00	10004.00	647.21	-707.39	0.00	0.00

FORMATION TOP DETAILS

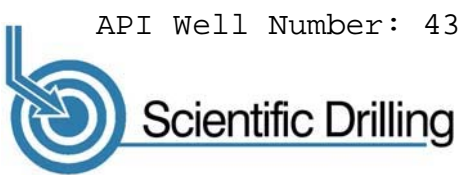
PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

TVDPath	MDPath	Formation
1123.00	1137.94	GREEN RIVER
1439.00	1465.09	BIRDSNEST
1914.00	1956.85	MAHOGANY
4280.00	4397.27	WASATCH
6773.00	6890.60	MESAVERDE
8866.00	8983.60	SEGO
8953.00	9070.60	CASTLEGATE
9404.00	9521.60	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2364.00	2422.72	8 5/8"	8.625



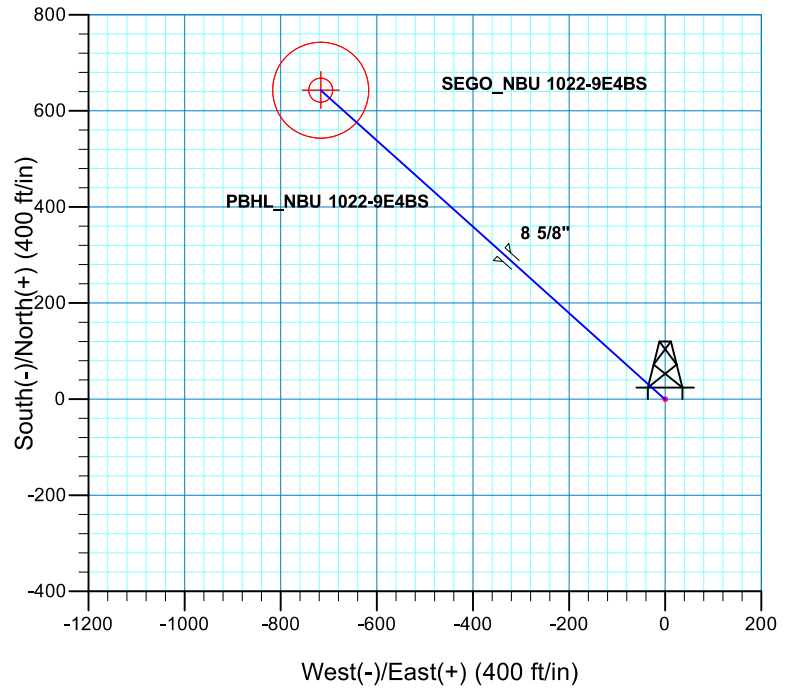
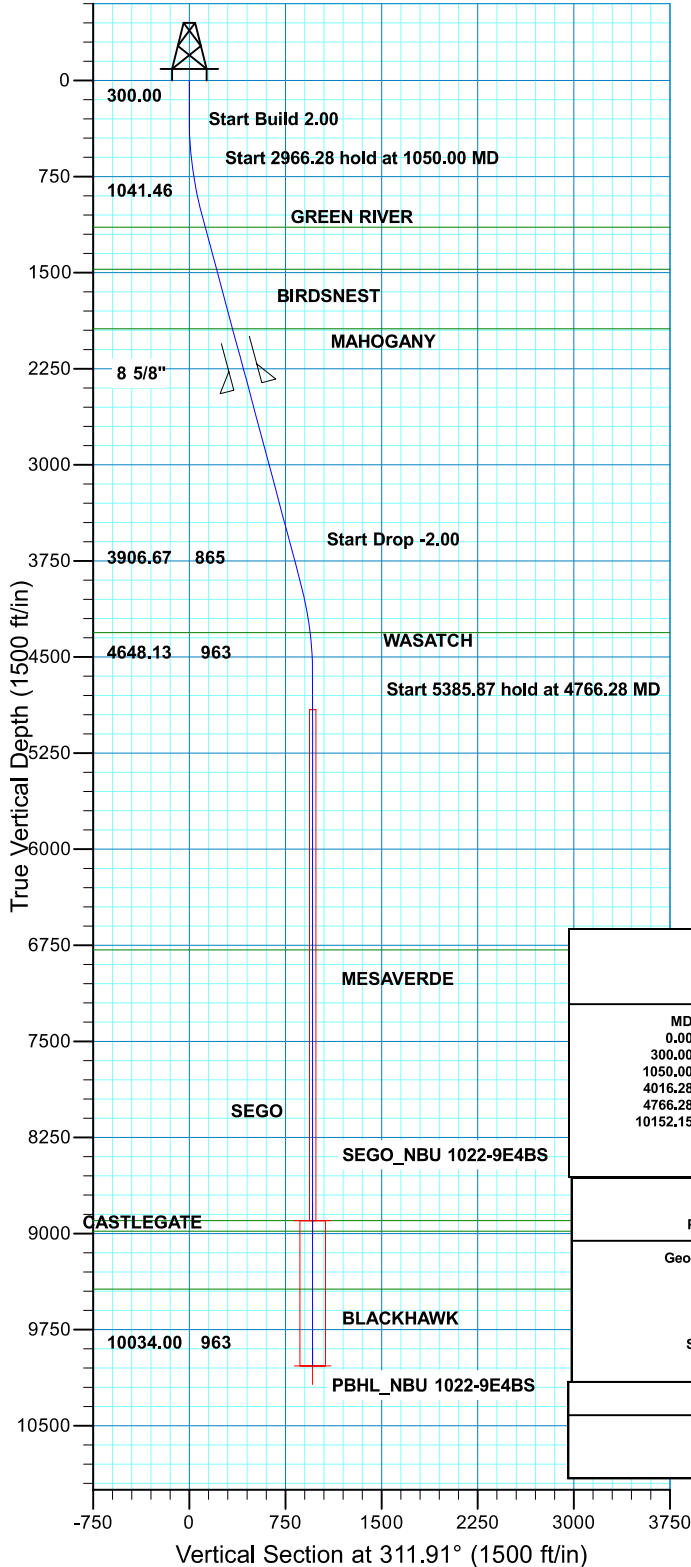
WELL DETAILS: NBU 1022-9E4BS

GL 5152 & KB 4 @ 5156.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14515985.94	2075152.95	39.9619940	-109.4485870

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8899.00	643.21	-716.64	14516616.58	2074425.23	39.9637600	-109.4511440	Circle (Radius: 25.00)
PBHL	10034.00	643.21	-716.64	14516616.58	2074425.23	39.9637600	-109.4511440	Circle (Radius: 100.00)



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00
1050.00	15.00	311.91	1041.46	65.20	-72.65	2.00311.91	97.62
4016.28	15.00	311.91	3906.67	578.01	-644.00	0.00	0.00
4766.28	0.00	0.00	4648.13	643.21	-716.64	2.00180.00	962.96
10152.15	0.00	0.00	10034.00	643.21	-716.64	0.00	0.00

PBHL_NBU 1022-9E4BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 9 T10S R22E
 System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1145.00	1157.19	GREEN RIVER
1473.00	1496.76	BIRDSNEST
1938.00	1978.16	MAHOGANY
4310.00	4427.36	WASATCH
6787.00	6905.15	MESAVERDE
8899.00	9017.15	SEGO
8981.00	9099.15	CASTLEGATE
9434.00	9552.15	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2388.00	2444.04	8 5/8"	8.625

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/21/2015

API NO. ASSIGNED: 43047555200000

WELL NAME: NBU 1022-9E4CS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

PHONE NUMBER: 720 929-6828

CONTACT: Joel Malefyt

PROPOSED LOCATION: NESW 09 100S 220E

Permit Tech Review: ☒

SURFACE: 2080 FSL 1378 FWL

Engineering Review: ☒

BOTTOM: 2555 FNL 0672 FWL

Geology Review: ☒

COUNTY: Uintah

LATITUDE: 39.96183

LONGITUDE: -109.44921

UTM SURF EASTINGS: 632452.00

NORTHINGS: 4424672.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 01196-B

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

☒ PLAT☒ Bond: FEDERAL - WYB000291☐ Potash☒ Oil Shale 190-5☐ Oil Shale 190-3☐ Oil Shale 190-13☒ Water Permit: 43-8496☐ RDCC Review:☐ Fee Surface Agreement☒ Intent to Commingle

Commingle Approved

LOCATION AND SITING:

☐ R649-2-3.

Unit: NATURAL BUTTES

☐ R649-3-2. General☐ R649-3-3. Exception☒ Drilling Unit

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: Suspends General Siting

☒ R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 3 - Commingle - ddoucet
4 - Federal Approval - dmason
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason

RECEIVED: January 13, 2016



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1022-9E4CS

API Well Number: 43047555200000

Lease Number: UTU 01196-B

Surface Owner: FEDERAL

Approval Date: 1/13/2016

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingling:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Alexis Huefner at 801-538-5302

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

A handwritten signature in black ink, appearing to read "John Rogers", written over a horizontal line.

For John Rogers
Associate Director, Oil & Gas

RECEIVED

Form 3160-3
(August 2007)

SEP 08 2015

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT BLM VERNAL UTAH

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU01196B
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator KERR MCGEE OIL & GAS ONSHORE Contact: JOEL MALEFYT Email: joel.malefyt@anadarko.com		7. If Unit or CA Agreement, Name and No. 891008900A (UTU063047A)
3a. Address 1099 18TH ST, SUITE 1800 DENVER, CO 80202		8. Lease Name and Well No. NBU 1022-9E4CS
3b. Phone No. (include area code) Ph: 720-929-6828 Fx: 720-929-7828		9. API Well No. 43-047-55520
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NESW 2080FSL 1378FWL 39.961948 N Lat, 109.449303 W Lon At proposed prod. zone SENW 2555FNL 672FWL 39.963726 N Lat, 109.451827 W Lon		10. Field and Pool, or Exploratory NATURAL BUTTES
14. Distance in miles and direction from nearest town or post office* 48.4 MILES SOUTH OF VERNAL, UT		11. Sec., T., R., M., or Blk. and Survey or Area Sec 9 T10S R22E Mer SLB SME: BLM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 611	16. No. of Acres in Lease 320.00	12. County or Parish UINTAH
17. Spacing Unit dedicated to this well	18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 448	13. State UT
19. Proposed Depth 10201 MD 10092 TVD	20. BLM/BIA Bond No. on file WYB000291	
21. Elevations (Show whether DF, KB, RT, GL, etc.) 5152 GL	22. Approximate date work will start 03/01/2016	23. Estimated duration 60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature (Electronic Submission)	Name (Printed/Typed) JOEL MALEFYT Ph: 720-929-6828	Date 08/26/2015
Title REGULATORY ANALYST		
Approved by (Signature) 	Name (Printed/Typed) Jerry Kenczka	Date DEC 28 2015
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

UDOGM

Electronic Submission #314235 verified by the BLM Well Information System
For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal
Committed to AFMSS for processing by STEVE HIRSCHI on 09/15/2015 (15STH0203AE)

NOTICE OF APPROVAL
CONDITIONS OF APPROVAL ATTACHED

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

15TK-R0117 AE

NDS 6/18/15

RECEIVED

JAN 11 2016

DIV. OF OIL, GAS & MINING



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	Kerr McGee Oil & Gas Onshore	Location:	NESW, Sec. 9, T10S, R22E
Well No:	NBU 1022-9E4CS	Lease No:	UTU-01196B
API No:	43-047-55520	Agreement:	891008900A

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

- | | |
|---|---|
| Location Construction
(Notify Environmental Scientist) | - Forty-Eight (48) hours prior to construction of location and access roads. |
| Location Completion
(Notify Environmental Scientist) | - Prior to moving on the drilling rig. |
| Spud Notice
(Notify Petroleum Engineer) | - Twenty-Four (24) hours prior to spudding the well. |
| Casing String & Cementing
(Notify Supv. Petroleum Tech.) | - Twenty-Four (24) hours prior to running casing and cementing all casing strings to:
blm ut vn opreport@blm.gov |
| BOP & Related Equipment Tests
(Notify Supv. Petroleum Tech.) | - Twenty-Four (24) hours prior to initiating pressure tests. |
| First Production Notice
(Notify Petroleum Engineer) | - Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days. |

***SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)***

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

Site Specific COAs:

- Geology, Minerals, and Paleontology
 - If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
 - If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontological material before construction can continue.
 - A BLM-permitted paleontologist will oversee monitoring of construction activities as indicated in SWCA Environmental Consultants' report number UT15-14314-21. Note that this is in addition to those already required in the Greater Natural Buttes FEIS/ROD (UT-080-07-807).
- Threatened, Endangered, Candidate and Proposed Plant Species: Uinta Basin hookless cactus (*Sclerocactus wetlandicus*)
 - Site inventory surveys will be valid for 4 years from the survey date. If more than 4 years pass between the original survey date and construction, a new clearance survey/site inventory will be required. If construction is to occur within the 4 year window, and at least 1 year after the initial survey date, an additional spot check survey will be required following the methodology established in the 2010 Memorandum of Understanding (MOU) between USFWS and BLM regarding *Sclerocactus* survey data use timing restrictions. Review of spot checks may result in requirements for additional pre-construction plant surveys or other requirements as directed by USFWS and the BLM Authorized Officer (AO).
 - The applicant will perform ground disturbing activities outside of the flowering period for *Sclerocactus wetlandicus* (April 1 through May 30).

- Only water and methods approved by the BLM (no chemicals, reclaimed production water or oil field brine) will be used for dust abatement measures within Sclerocactus habitat.
- Dust abatement will be employed in suitable Sclerocactus habitat over the life of the project (during ground disturbing activities, and/or periods of increased travel frequency and amount of traffic to the Project Area; does not apply to general maintenance activities) during the time of the year when Sclerocactus species are most vulnerable to dust-related impacts (March through August).
- Noxious weeds within Sclerocactus habitat may be controlled with herbicides, in accordance with the BLM Herbicide PEIS (http://www.blm.gov/wo/st/en/prog/more/veg_eis.html). Guidelines and the BLM's Standard Operating Procedures for Threatened and Endangered Plant Species (Table 1).
- Application for a Pesticide Use Permit will include provisions for mechanical removal, as opposed to chemical removal, for Utah Class A, B, and C noxious weeds within 50 feet of individual/populations of Sclerocactus.
- Erosion control measures (e.g., silt fencing) will be implemented to minimize sedimentation to Sclerocactus plants and populations located down slope of proposed surface disturbance activities, and should only be implemented within the area proposed for disturbance.
- All disturbed areas will be reclaimed with plant species native to Utah, or seed mixtures approved by the BLM and our office, which may include the use of sterile, non-native, non-invasive, annuals to help secure topsoil and encourage native perennials to establish.
- Discovery Stipulation: Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for Uinta Basin hookless cactus is anticipated as a result of project activities.
- Green River District Reclamation Guidelines
 - The Operator will comply with the requirements of Appendix B: Green River District Reclamation Guidelines (p. 59), formalized by Green River District Instructional Memo UTG000-2014-004 on May 21, 2014.

**DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

SITE SPECIFIC DOWNHOLE COAs:

- Surface casing cement shall be brought to surface.
- Production casing cement shall be brought 400' up and into the surface casing.
- For the drilling of the surface hole section, operator is required to install an bowl diverter system or rotating head which is connected and discharges to an panic or choke blooie line. The surface hole section of the subject well is deeper than 2,000 ft.
- A variance is granted for Onshore Order #2 Drilling Operations III. E. "Blooie line discharge 100 feet from well bore and securely anchored" Blooie line can be 75 feet.
- All requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well by CD (compact disc). This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid,

and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 01196-B
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-9E4CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2080 FSL 1378 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESW Section: 09 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047555200000
PHONE NUMBER: 720 929-6454		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 1/4/2017 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.		
<div style="color: red; font-weight: bold;"> Approved by the January 04, 2017 Oil, Gas and Mining </div> <div style="margin-top: 10px;"> Date: _____ By: </div>		
NAME (PLEASE PRINT) Candice Barber	PHONE NUMBER 435 781-9749	TITLE HSE Representative
SIGNATURE N/A		DATE 1/4/2017



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047555200000

API: 43047555200000

Well Name: NBU 1022-9E4CS

Location: 2080 FSL 1378 FWL QTR NESW SEC 09 TWP 100S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 1/13/2016

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? ☒ Yes ☐ No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? ☐ Yes ☒ No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? ☐ Yes ☒ No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? ☐ Yes ☒ No
- Has the approved source of water for drilling changed? ☐ Yes ☒ No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? ☐ Yes ☒ No
- Is bonding still in place, which covers this proposed well? ☒ Yes ☐ No

Signature: Candice Barber

Date: 1/4/2017

Title: HSE Representative Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.